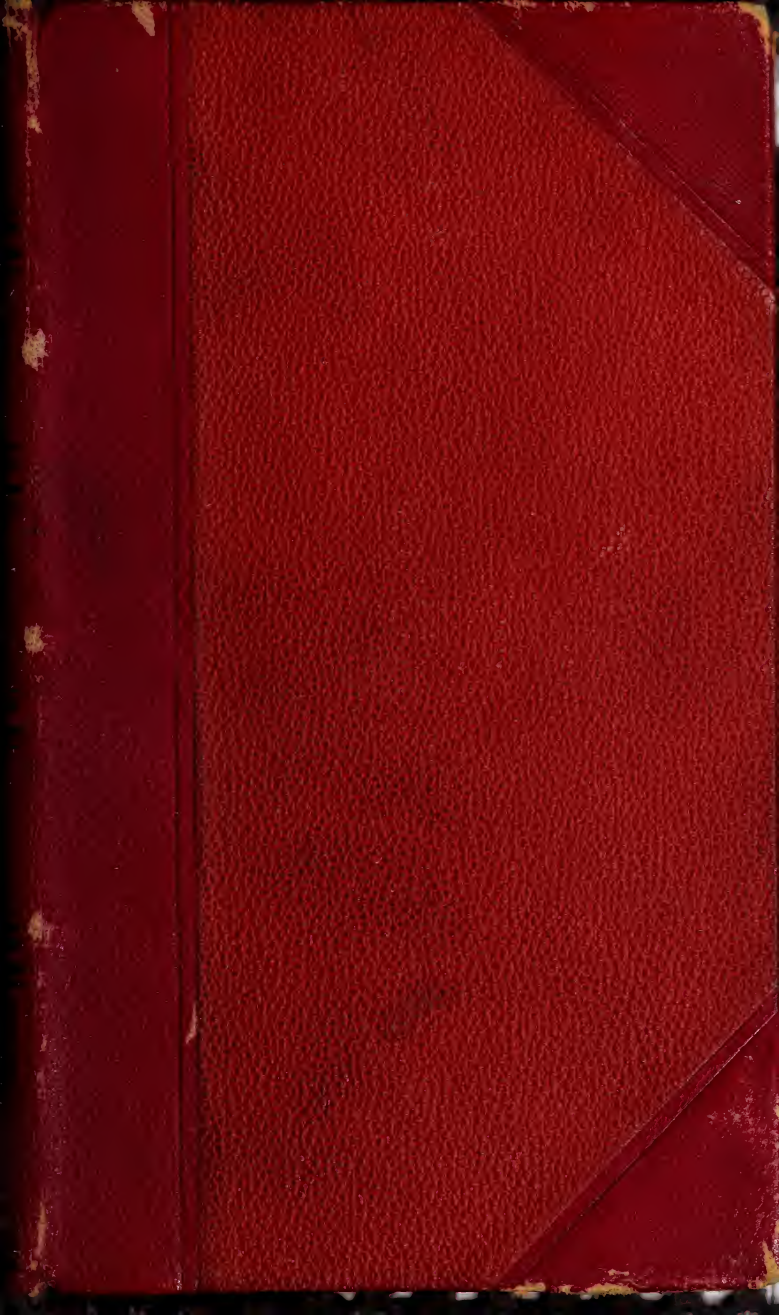




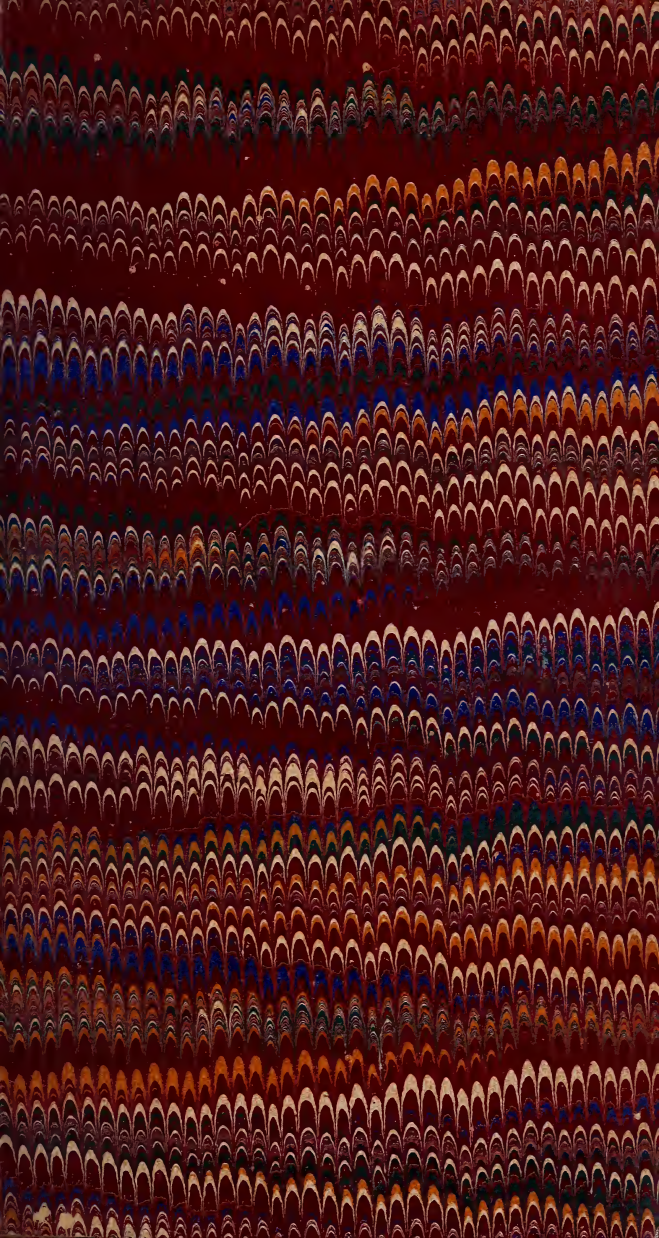
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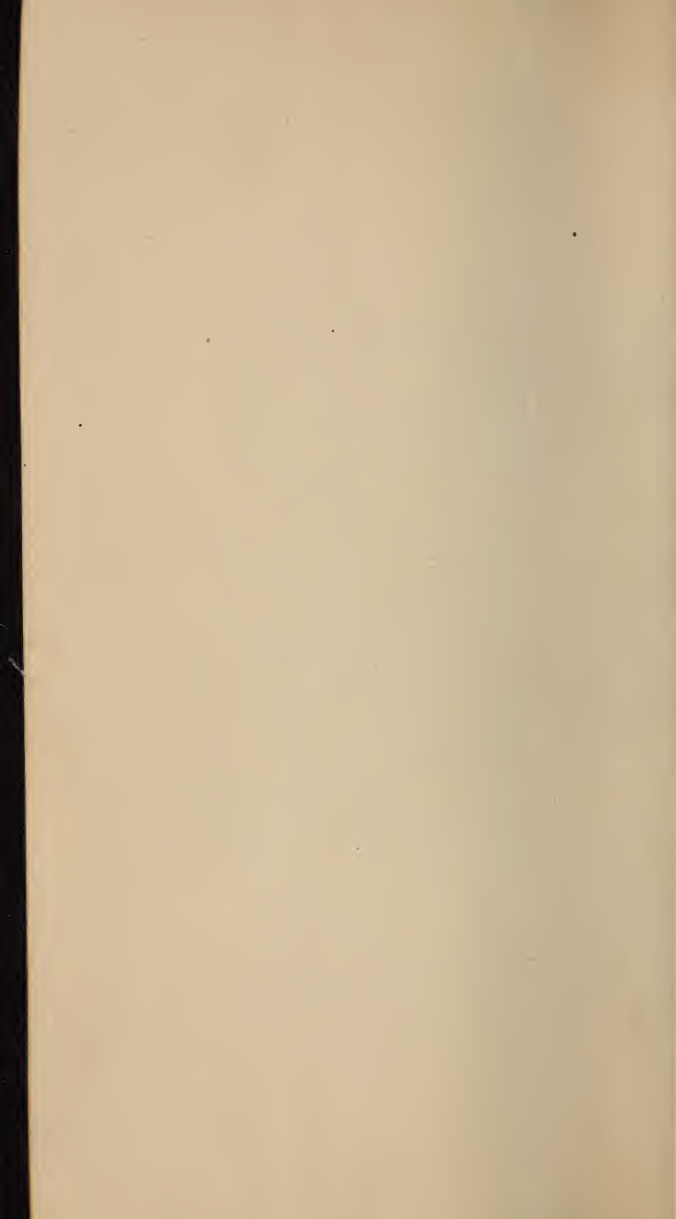
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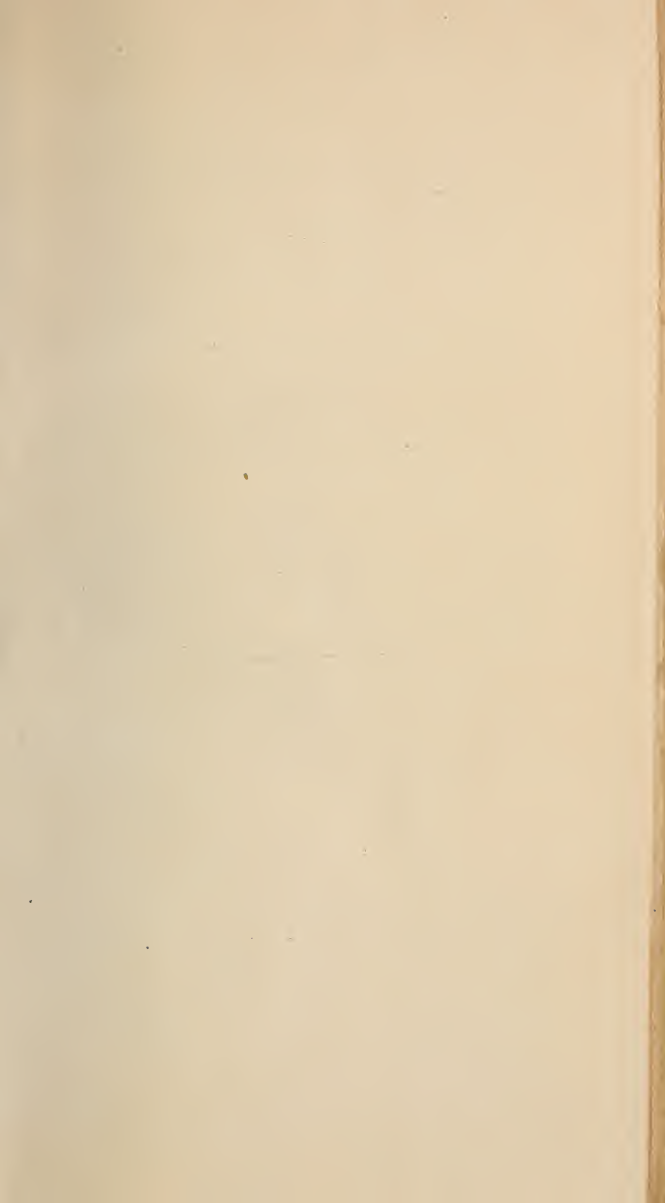
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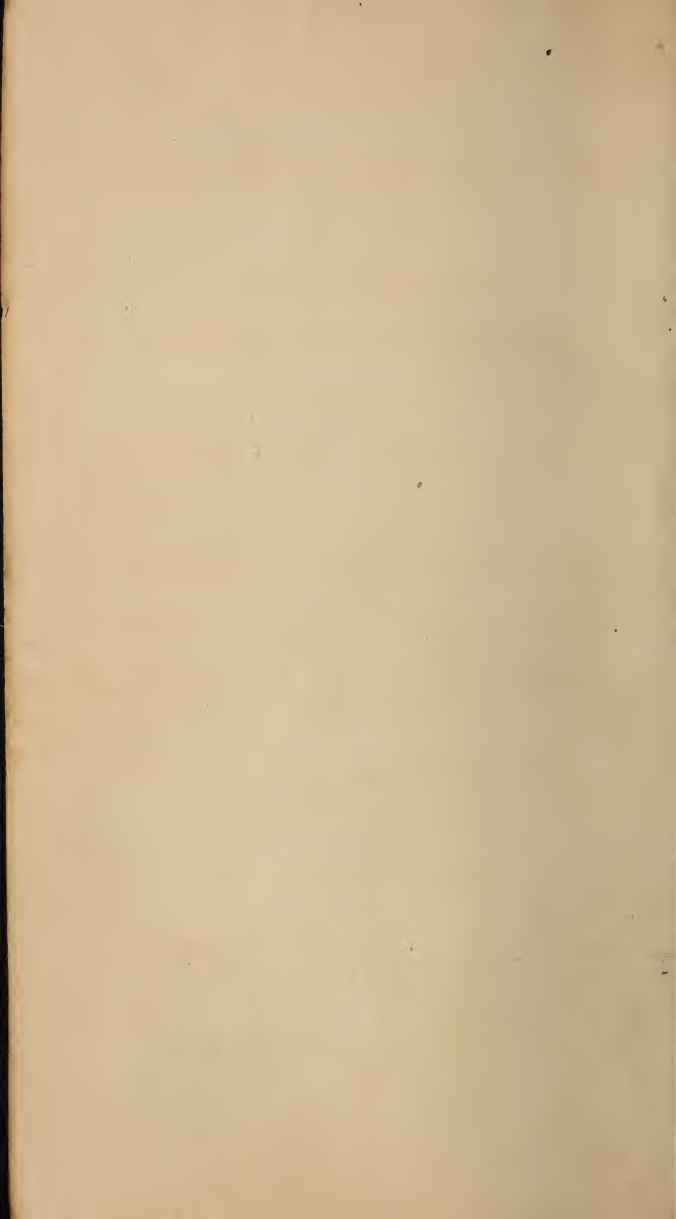
1801

UNITED STATES OF AMERICA.









136
BEAUTIES

OF

NATURE DELINEATED;

OR,

PHILOSOPHICAL

AND PIOUS CONTEMPLATIONS

ON THE

WORKS OF NATURE,

AND THE

SEASONS OF THE YEAR.

*Selected from STURM'S REFLECTIONS,
By the Rev. THADDEUS M. HARRIS.*

" Whom Nature's works can charm, with God himself
" Hold converse ; grow familiar day by day
" With his conceptions, act upon his plan,
" And form to his the relish of their souls."

AKENSIDE.

Second Edition. Published agreeably to Act of Congress.

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1801.



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PREFACE.

THE selection here offered to the public is made from STURM'S "*Reflections, on the works of God and of his Providence, throughout all nature, for every day in the Year.*" Copious testimonials in favor of that work might have been extracted from foreign Journals and Reviews ; but it will be sufficient to observe that its merit, and the high opinion which has been entertained of it, are sufficiently evinced in the numerous and large editions through which it has passed in the original German and in most of the languages of Europe. Though the English translation is inaccurate, inelegant, and frequently ungrammatical, it has been well received and frequently reprinted.* So interesting, entertaining, and instructive was the matter and the sentiment, that the manner and the style was

* Translated into English from the German, by a LADY, in 3 volumes, 12mo.

but little regarded.* The editor was employed to revise those volumes, and make such corrections in the style and natural philosophy (for the author was not fully acquainted with the modern discoveries and improvements) as would recommend an impression of the work in America. But he found so much that might be corrected, and so much that might be omitted, that he thought it advisable to relinquish the idea of retaining the whole series of numbers, and to give the work itself a new form. Accordingly he has arranged the subjects in a natural and perspicuous order, calculated to carry forward the thoughts in an instructive and pleasing train. He has frequently united and compressed several of the numbers into one ; omitting, abridging, and altering paragraphs as he thought best. In short, the most scattered materials he has endeavored to dispose into something like order and system. Of this the table of contents will give some idea. The first part is intended to exhibit distinct views of the Works of Nature ; the second is accommodated, principally, to the Seasons of the Year.

* Since, a new translation, abridged, has been published by HEMET, 1798, in a 12mo. vol. of 448 pages. And a little volume has appeared, called "The BEAUTIES of STURM, by ELIZA ANDREWS." These the Editor has lately seen ; but they could neither assist nor supercede the present work.

Those articles, which in the table of contents are distinguished by an asterism, are principally or entirely compiled from other sources : a liberty not freely indulged in any of the rest.

At the recommendation of a particular friend, and in compliance with the taste of the day, *mottos* have been selected, as heads to the different chapters. These are chiefly taken from the English poets ; but some are original. Persons of more retentive memories might have recollected better ones ; but it is hoped that these will not be thought altogether unappropriate.

To every reflecting, serious, person, this little volume will prove a valuable acquisition. It is eminently calculated to give enlarged conceptions of the works of Creation ; and, by an easy transition, to lead the thoughts “ from Nature up to Nature’s God.” It is particularly useful to young persons, whom it will furnish with a just and rational knowledge of the various phenomena of nature, and the admirable economy of the system to which they belong ; assisting them in the wisest reflections upon every thing around them, and inspiring them with *the most exalted sentiments of the SUPREME BEING*—all whose works proclaim and praise him.

“ Who can this field of miracles survey,

“ And not with Galen all in rapture say,

“ Behold a God ! adore him and obey !”

Advertisement to this second Edition.

THE rapid sale of a large edition of this interesting work, and the continued demand for it, making another impression necessary, the Editor has endeavored to render it still more worthy of the public favor, by a careful revision of the whole, by rescinding some sentences that had been undesignedly repeated, and by adding several important articles. For the liberty he has taken of inserting new matter, with extracts from other authors, he assigns this reason, that he thought it necessary to supply the defects of the original work and complete the plan of this.

It is thought expedient to inform the public, that, it is presumed that this volume is now as perfect as would comport with professing it to be selected from STURM ; and that therefore all future editions will be without farther alteration or enlargement.

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PART I.

ON THE

WORKS OF NATURE.

*AN INVITATION TO CONTEMPLATE GOD IN THE
WORKS OF NATURE.*

“ Begin my soul the exalted lay !
“ Let each enraptur'd thought obey,
“ And praise the ALMIGHTY's name.
“ Lo ! Heaven, and earth, and seas, and skies,
“ In one melodious concert rise,
“ To swell the inspiring theme !”

OGILVIE.

O YE who adore with me the Lord, by whom the heavens and the earth were made, come and reflect on his works ! Behold the wonders that he has done ! Acknowledge and have a lively sense of his mercies ! Of all the knowledge that we can acquire this is the most important, the most easy and agreeable. We could dispense with many sciences which we take such pains to learn ; but the knowledge of God and his works is absolutely.

necessary, if we wish to fulfil the end of our creation, and by that mean secure our happiness here and hereafter. We do well undoubtedly to seek to know God, such as he has revealed himself to us in his divine word ; but we shall not receive that revelation with an entire conviction of heart, if we do not join to it this other revelation, by which he has made himself manifest to us throughout all nature, as our Lord, our Father, and Benefactor. It is the best preparation to understand, and to receive as we ought the gospel of Christ, for this reason, that, in teaching his disciples the truth of religion, the divine Redeemer often spoke of the works of nature, and made use of the objects which the physical and moral world afford, to lead his hearers to reflections on spiritual and heavenly things. In general it is a noble employment, and well worthy of man, to study constantly the book of nature ; to learn in it the truths which may remind us of the immense greatness of God, and our own littleness ; of his blessings, and the obligations which they impose upon us. It is shameful for man to be inattentive to the wonders which surround him on all sides, and to be as insensible to them as the brutes are. What employment can be more pleasing to the human mind than to contemplate in the heavens, the earth, the waters, the night, and day, in a word, throughout all nature, the

wisdom, power, and goodness of our Creator and Preserver ! What can be more delightful than to discover in the whole creation, in all the natural world, in every thing which we see, traces of the providence and tender mercies of the Father of all beings ! There are no amusements, no worldly joys, of which we are not soon tired ; but these are pleasures ever new.

Let us adore God in his wonderful works. Let us endeavor more and more to be acquainted with him. Let us reflect on his greatness, admire his power, celebrate his wisdom, and rejoice in his goodness, displayed in every season of the year, and diffused through every part of creation. This employment will make us not only happy but virtuous ; for if we have God and his works continually in our sight, with what love and veneration shall we not be penetrated ! with what confidence shall we not resign ourselves to him ! with what zeal and transport shall we not sing his praise !

NATURE DISPLAYED.

“ To me be NATURE’s volume broad display’d;
“ And to peruse its all instructive page,
“ Or haply catching inspiration thence,
“ Some easy passage, raptur’d, to translate,
“ My sole delight.”

THOMPSON.

HAPPY the man, whose genius, rising above the mere gratification of his senses, prompts him to inquire, with the assistance of reason, into the true cause of things, and to pierce through the dark veil which conceals from mortals the mysteries of nature ! How insensible are mankind ! They stop to observe the course of a river. Supinely lying on the green turf, they contemplate the clear stream murmuring as it flows. The coolness of the water, the enamelled field, the verdure of its banks ; every thing enchants their sight. But few know how to enjoy a still greater pleasure, that of tracing the source itself of these waters, the inexhaustible reservoir whence they proceed. Thus, we generally look only on the outside of things. But let us go deeper ; let us dare to open a path into the recesses of

nature. How noble is it to reflect on the principles of things, to contemplate their essence ! It is to this that the wise man soars ; all the rest is but the trifling amusement of the vulgar. It would be totally impossible to reckon all the blessings of nature, bestowed upon us ; but let us endeavor to comprehend in some degree, how much we owe to our sovereign Benefactor. For this purpose, let us look into the places of our several enjoyments, and see what productions of the earth are there presented to us. The flowers, which appear but a mere amusement, are lovely ornaments to our retreats, and by the sweets they exhale, and the beautiful colors with which they are adorned, charm and delight us. The orchards and kitchen gardens are not so pleasing to the eye, but their utility compensates for this : they produce successions of excellent provisions for our tables during the whole year, much more wholesome than those invented by art to excite, or (more properly speaking) to corrupt, our taste.

Let us go a little farther ; let us quit the confinement of towns and villages, to enjoy the spacious fields where the industry of man produces that staff of life, that bread which supports the whole human species. The earth faithfully rewards the farmer's toil, and returns with incred-

ible interest all that is laid out upon it. Unimpaired by age, it constantly resumes the charms of spring, and the luxuriance of summer ; and, after having produced the most plentiful harvest, a winter's rest entirely repairs its losses.

Let us now enter into the woods. The light of day obscured by the thick foliage of the stately trees, the pleasing coolness, the still silence that reigns through all, combine to give them a striking air of solemnity and grandeur. What human industry would be sufficient to plant, to water, and to take care of those trees, so indispensable to us : for without them, where should we find fuel to prepare our food, and to protect us from perishing with cold ! God alone creates and preserves those forests, which are in so many ways of inestimable value to us.

Let us now glance over our meadows and pasture. We behold them enamelled with flowers, and full of all sorts of herbs, which not only serve as pasture for animals, but many of them are delightful to us, and furnish us with excellent medicines.

How beautiful an object, how great an ornament to nature, is a river ! Whether we stop to reflect upon its motion and utility, or its origin and supplies. The beauty of its course charms

us, the multitude of blessings it affords fills us with gratitude, and the obscurity of its source raises our admiration. It is at first but a little stream trickling down a hill, and which the smallest pebble is enough to divert from its course : But soon, the overflowing of lakes, the melting of snow, the falling of floods, enlarge it. It makes itself a bed, and flows copiously into it : it enriches the fisherman's hut, and the laborer's dwelling ; and, after having been the ornament and delight of the country, it flows with majesty towards the cities, where it conveys plenty, by means of the ships it bears. " The river of God is full of water ;" thousands of springs burst from the bosom of the earth, and the vast ocean embracing it, absorbs the whole.

In the inside of our globe, as in a vast magazine, are found laid up for our different occasions, salts of various sorts, quarries, mines, stones, metals, &c.

Lastly, the very air which we breathe is full of blessings. The clouds which collect there pour upon us these fruitful rains, which " water our furrows, and make them soft, and which cause the land to yield its fruits in their season." The same air, besides giving free passage to those winds which sweep away contagion, transmits also this

beneficial light and these salubrious rays which illumine, warm, and quicken all nature.

Here let us pause, and adore that beneficent, that almighty Hand, that only inexhaustible Source, that Ocean whence flow all our blessings. And let us endeavor to deserve those that are eternal, which as much surpass the present, as the heavens are beyond the earth, eternity beyond time, the Creator beyond the creature.



MAGNIFICENCE OF GOD IN HIS WORKS.

" These are thy glorious works, PARENT of good,
" ALMIGHTY ! thine this universal frame,
" Thus wondrous fair ; thyself how wondrous then !"

MILTON.

WHY is there such splendor in the works of God ? Why is there such magnificence in all that we see ? Why do we every where discover such numberless objects, which appear each more beautiful than the other, and each of which has its peculiar charms ? Why do we every where find new cause for wonder and admiration ? It is, doubtless, that we may never cease to admire and adore the great Being, who is infinitely more beautiful, more sublime, and more magnificent, than all which we admire most in nature. It is that we may continually say to ourselves, If the works be so complete, what must the Creator be ? If such is the beauty of creatures, what must be the inexpressible beauty, the infinite grandeur of him who beholds with one glance the whole creation ? If the sun have a dazzling brightness which our eyes cannot bear, ought we to be surprised that he who lighted that globe dwells in

inaccessible light, where no eye has seen, or can see him ? Let us, therefore, hereafter divide our attention between God and nature ; in order to consider in the latter, as in a glass, the image of that Being whom we cannot contemplate face to face. Let us collect the many beauties and perfections, which are scattered over the vast empire of the creation ; and when their innumerable multitude strikes us with astonishment, we shall say to ourselves that, compared with the perfections of their Creator, they are less than a drop in the ocean. Let us only consider what is amiable and beautiful in created beings, abstracting what is finite and limited, in order to form a more just and proper idea of the excellence of the Ruler of the universe ; and, when the sight of their faults and imperfections shall have lessened our admiration of their beauty, let us cry out ; If the creation be so beautiful, notwithstanding its defects, how great and worthy of admiration must he be, whose splendor is spotless, more pure than light, more brilliant than the sun !

“ God has shewn himself in the creation as a Being infinitely wise.” There is no creature however insignificant it may appear, that has not its use ; and all of them are formed in the manner best adapted to the purposes of their existence. This we know with certainty of those with which

we are acquainted, and we may conclude the same of the rest by analogy. From the sun, down to the lowest worm, or smallest plant, we shall every where find, that, for the purpose designed by the Creator, nothing could be formed otherwise than it is. The most minute parts of each are manifestly adapted to its destination : They serve for the functions prescribed them ; and the whole creature would be defective, if any one of its parts were hurt or taken away. How wonderful is the whole which results from the connection between all creatures in general ! Each is in its place ; each has its proper office, and none of these could fail without causing an imperfection more or less in the whole. When, therefore, we represent to ourselves the Being who formed this innumerable multitude of creatures animate and inanimate ; who has not only designed each of them for certain purposes, but has disposed and arranged every part of them in the manner best adapted to those purposes, so that there is nothing superfluous or wanting ; who has, from the connection between each individual, formed an admirable whole, in which there exists the most perfect harmony ; must we not be struck with astonishment, and cry out with respectful admiration, “ O the depth of the wisdom and knowledge of God ! ”

“ In the creation God has shewn himself a Being infinitely good.” What multitudes of animated creatures has his beneficent hand produced ! Is not life invaluable to every thing that breathes ? Is it not a blessing to the poorest worm ? What pleasure does not God take in doing good, since he has bestowed on so many creatures the privilege of existence ! But of what use would their existence be, if they were to be immediately deprived of it ? The Creator has therefore ordained, that each should live as long as was necessary for its destination. He has appointed to each creature the place which it is to inhabit, and each finds on its entering the world every thing necessary for the preservation of its life. How many enjoyments and pleasing sensations does the Creator grant with life to all animated beings, and particularly to mankind ! With what magnificence has he not adorned and embellished the world which man was to inhabit ! What sweets does not social life afford ! What tender ties, what warm affections, what delightful sentiments has he created for the heart to enjoy ! Let us never be ungrateful to such a bountiful Creator ; and, since we are endowed with reason, and are capable of knowing and loving God, let

us acknowledge with transports of joy, that "the earth is full of his mercies."

"In the creation God has shewn himself as a Being of infinite power." This unlimited power, which is visible in all creatures, is particularly so in the two extremes, in the greatest and in the most minute works of the universe. What but an almighty hand could form the firmament, that immense extent, that prodigious space, which contains such a number of celestial bodies? Who but he could preserve this immense fabric, fix it unshaken, and yet keep up in it so many different, though regular movements? Who but he could raise the sun to such a height, appoint its situation so as not to deviate from it, and maintain it unsupported in that vast expanse? Could any but an almighty power give motion to the earth, the moon, and stars, so as to run invariably the course prescribed them, to finish and begin again their revolutions at certain appointed periods? Or, if we consider the divine Omnipotence in the smallest objects, we shall find it there as incomprehensible as in the largest. We need only cast our eyes on the dust under our feet. Even that is inhabited by an innumerable multitude of animals, so small that several thousands of them joined together would not be equal to a

grain of sand. Yet each of these animals has its exterior and interior parts ; each has its sense and feeling, each has its instinct, loves life, and endeavors to preserve it. Behold also the grass of the field, the hairs of your head, the blossoms of the trees, and study their construction, their origin, and use. We shall every where discover wonders ; every where acknowledge the infinite power of him who forms celestial globes with as much ease as he creates a worm or causes a flower to grow.

How great and numerous are the works of God ! They are full of wisdom, and the earth is filled with blessings. May these reflections excite in us the love, respect, and confidence, due to the wisest, best, and most mighty of Beings !

*PLEASURES WHICH THE CONTEMPLATION OF
NATURE PROCURES.*

“ Where’er the pleasing search my thoughts pursue,
“ Unbounded goodness rises to my view ;
“ Nor does our world alone its influence share ;
“ Exhaustless bounty and unwearied care
“ Extend through all th’ infinity of space,
“ And circle nature with a kind embrace.”

BLACKMORE.

NATURE offers to all her children, with maternal goodness, the first, the most innocent, the least expensive, and most universal of all pleasures.

It is almost impossible not to find charms in the contemplation of nature. And that it may be enjoyed without expense is manifest ; the poor as well as the rich may indulge in it. But this is what lessens its value. We are so foolish as not to prize what others share with us ; while, if we were reasonable, nothing should give more value to a blessing than the thought that it makes the happiness of our fellow creatures, as well as our own. Compared to this pleasure, so noble and so sensible, how trifling and vain are those far fetched magnificent amusements which the rich

obtain with so much trouble and expense, which leave a certain void in the soul, and always end in *ennui* and disgust ! Whereas nature, rich and beneficent, presents us continually with new objects. Pleasures which are only the work of our own imagination are of short duration, and vanish like a dream, the charms and illusions of which are lost at the moment of waking. But the pleasures of reason and of the heart, those which we enjoy in contemplating the works of God, are solid and lasting, because they open to us an inexhaustible source of new delights. The starry sky, the earth enamelled with flowers, the melodious notes of the birds, the various landscapes and prospects one more delightful than another, may continually furnish us with new subjects of satisfaction and joy. If we be insensible to these it is certainly our own fault ; it is because we behold the works of nature with an inattentive and indifferent eye. The duty of a rational being consists in enjoying innocently all that surrounds him. He knows how to draw resources from every thing, and has the art of being happy under any circumstances.

ENJOYMENTS WHICH WE FIND IN NATURE.

“ Happy the man, who from the world escap’d,
“ In still retreats and flowery solitudes,
“ To NATURE’S voice attends from month to month,
“ And day to day through the revolving year ;
“ Admiring fees her in her every shape ;
“ Feels all her sweet emotions at his heart ;
“ Takes what she liberal gives, nor thinks of more.”

THOMPSON.

ON whatever part of the creation we turn our eyes we every where find something, which interests either our senses, our imagination, or our reason. All nature is so formed as to afford us numberless pleasing objects, and to supply us with various enjoyments continually succeeding each other. Our love of variety is constantly excited and constantly gratified. There is no part of the day that does not afford us pleasures both for our senses and our minds. While the sun illuminates the horizon, the plants, the animals, with a thousand agreeable objects, delight our eyes : and when the night spreads its veil the majesty of the sky transports and charms us. On

every fide nature labors to furprife us with new pleasures. Even the fmalleſt worm, a leaf, a grain of ſand, preſent us with objects of admiration. The ſame ſpring which waters the vallies, invites us to ſleep, pleaſes the ear, and ſerves alſo to quench our thirſt. The ſhady forest, which defends us from the intenſe heat of the ſun, where we enjoy a delightful coolneſs, and where we hear the melody of various birds, feeds at the ſame time a multitude of animals, which will themſelves ſerve for food to us. Thoſe trees, the bloſſoms of which were a few months ago, ſo pleaſing to the ſight, will ſoon ſupply us with delicious fruit ; and thoſe meadows, now covered with waving corn, will ſoon yield us a plentiful harveſt. Nature preſents no objects to us that are not pleaſing and uſeful in more than one reſpect. The merciful care of Providence ordained that the color of green, the moſt mild and pleaſing to the eye, ſhould clothe and cover the earth. It was in itſelf agreeable to the ſight, but variety might add charms to it. For this reaſon we ſee light and ſhade ſo happily diſtributed, thoſe different degrees of color, and thoſe various ſhades of green. Each ſort of plant has its regular and peculiar color. Landſcapes covered with woods, buſhes, greens, herbs, and corn, afford a magnifi-

cent scene of verdure, in which the tints are infinitely varied, mixed, cut, or blended insensibly, and yet are always in perfect harmony. Each month affords us different plants and flowers. Those that have served their purpose are replaced by others ; and thus successively prevent any void in the vegetable kingdom. But to whom do we owe these numerous and varied gifts ? Who is he that provides for our wants and pleasures with such goodness and munificence ? Go and ask it of all nature : the hills and the valleys will tell thee ; the earth points him out to our sight ; the sky is a mirror in which we may behold him ; the storms and tempests proclaim him ; the voice of thunder, the rainbow, the rain, and the snow, declare his wisdom and goodness. The green fields, the meadows covered with gilded corn, the mountains crowned with forests, raising their heads to the very clouds, the trees laden with fruit, the gardens enamelled with flowers, the rose in its full beauty, all bear the impression of his handy work. And all the numerous host of animals which people the air, the earth, and the sea, declare the glory of the Almighty, and proclaim his existence. How unpardonable should we be, were we deaf to this

general voice of nature ! Oh ! let us, that are happy witnesses of these wonders, let us, in the presence of all his creatures, pay him that homage of gratitude and adoration so justly due to him. Those rich lands, where our flocks graze, those forests which afford us shade and fuel, that sky which is over us, and gives us light, every thing invites to grateful joy. Let our souls be filled with it. Let the sense of our happiness, and of God's blessings, attend us in our walks, and follow us into solitude. We shall find that there is no satisfaction more heartfelt, more lasting, or more conformable to human nature, than the calm pleasures which the contemplation of the works of God affords.

NATURE IS A LESSON FOR THE HEART.

————— “Meditate the book
“Of nature, ever open ; aiming thence
“Warm from the heart, to learn the moral song.”

THOMPSON.

WE gain, in every respect, by studying nature ; and it may, with reason, be called A SCHOOL FOR THE HEART, since it clearly instructs us in our duty towards God, our neighbor and ourselves.

Can any thing inspire us with more profound veneration towards God, than the reflection that it is he who has not only formed our globe out of nothing, but whose almighty hand also confines the sun within its orb, and the sea within its bounds ? Can we humble ourselves too much before that Being who created the innumerable worlds which roll over our heads ? Must we not shudder at the very thought of offending that God, of whose boundless power we every moment see proofs, and who with a single glance can destroy or make us wretched ?

But the contemplation of nature is highly calculated to fill us with love and gratitude towards its Author. All nature loudly proclaims this

comfortable truth, that *God is love*. It was love which induced him to create the world, and to communicate to other beings the felicity which he himself enjoys. Is there in reality a single creature, which does not furnish proofs of these beneficent regards ? But particularly, if we reflect on ourselves, how many may we not find ? The Creator has endowed us with reason, not only to enjoy his blessings, but to acknowledge also the love with which he honors us, and which enhances infinitely the value of his favors. Ought not so many blessings daily enjoyed to excite our most grateful acknowledgments and win our most constant obedience ? And when we reflect on the admirable order which reigns throughout all nature, ought it not to produce the best dispositions in our minds ? If we are convinced that nothing can be pleasing to God, which is contrary to order and regularity, should we not conform to it ? How unpardonable to oppose, by our irregularities, the merciful designs of Providence in our favor ?

It is thus that nature becomes an excellent lesson for the heart. If we listen to it, we shall learn the true wisdom which leads to happiness.

MEDITATION ON THE WORKS OF NATURE.

“ Fair are the scenes of nature, rich its stores,
“ Indulgent spread for man : but man is mortal.
“ Then let him stretch his views to other worlds,
“ Where bliss immortal waits the virtuous soul.”

FATHER of the universe ! preserver of all that breathe ! how great is thy majesty, and how many wonders thou shewest unto man ! It is thy hand which has stretched out the heavens, and set them thick with stars. Now, I behold the sun, shining in all its splendor, to reanimate nature. To-morrow, perhaps, it will be no more for me that the birds make the woods, the fields, and the vallies resound with their melodious notes. I feel that I am mortal ; my life fades away like the grass of the field : it withers as a leaf fallen from the branch where it grew. When the grave shall have swallowed me up, when darkness and silence come upon me ; what will then remain of my earthly possessions ? Will not all be lost to me, though even all my wishes had been gratified, and I had here enjoyed unmixed happiness ? O how senseless should I be, were I to attach myself to the transitory blessings of

this world ! If I aspired to great riches, if I was ambitious of empty honors, and if allowing myself to be dazzled by vain splendor, envy and pride should take possession of my heart ; if too eager in my wishes, I have pursued what I ought not to aspire to, I humble myself before thee, O God.

When, in the morn, on the green turf covered with dew, every thing presents me a cheerful prospect, and the wings of the night have cooled the burning heat of summer, wisdom cries out to me, O mortal ! why dost thou harbor cares ? Why yieldest thou thyself to anxiety ? Is not God thy Father ? Art not thou his child ? Will not he who made thee, take care of his own work ? The plan of thy existence is not limited to this earth, it embraces heaven. Life is but a moment ; and the longest earthly felicity is but a pleasing dream. O man ! thy destination is immortality. The thought of immortality raises us above the earth, the universe, and time. It shall awaken my heart, when seduced by false pleasures, I am inclined to quit the path of virtue. The roses which crown the head of the wicked soon fade. His shameful enjoyments dishonor him, and repentance succeeds them. I am but a sojourner upon earth, and none but immortal joys deserve pursuit.

HYMN OF THANKSGIVING FOR THE WORKS OF THE
CREATOR.

“ Nature’s replenish’d theatre survey—
“ Then, all on fire, the Author’s skill adore,
“ And in loud songs extol creating power !”

BLACKMORE.

To thee, O Lord ! from whom proceedeth every blessing, and who dispensest them so bountifully, to thee belong glory, honor, and thanksgiving. Thou hearest the cries of the young raven, and takest pleasure in the song of the lark ; vouchsafe to listen also to my voice, and accept the tribute of praise due to thee. The least of the creatures formed by thy hand proclaims thy wisdom. The traces of thy goodness and power are seen from one end of the year to the other, and are continually renewing. With parental tenderness thou providest for our necessities, and givest to men and animals their proper food. It is in the hope of thy blessing, that the farmer sows his corn : it is thou who makest the seed fruitful. Thou waterest the furrows of the fields. Thou clothest the meadows, the valley, and the

plain with flowers, and herbage, with trees and groves. Thou orderest the cool and refreshing dew to moisten our gardens and fields, and to shed on them fertility and abundance. The barren and dry soil thou waterest with gentle rains. The cold and wet places thou warmest with the rays of the sun. The weather and the seasons thou orderest in wisdom, and in the manner most beneficial to mankind. Thou coverest our fields with rich harvests, and the wings of the wind support the waving corn. Thou adornest the tops of barren rocks with grapes. Thou dressest our pasture with clover ; and by thy command, the fountains and streams give drink to the thirsty animals. Thou causest the tree to take root, and it prospers. A quickening sap circulates through its trunk, and gives it force to branch out with leaves and blossoms ; while the abundance of fruit, under which the boughs bend, proves the pleasure which thou hast in doing good. We, therefore, glorify thee, our Creator, our Benefactor ! we bless thy holy name ! All thy works are great, and good, and wonderful. We rejoice in thy goodness.

GOD'S UNIVERSAL CARE OF HIS CREATURES.

“ The holy power that clothes the senseless earth
“ With woods, with fruits, with flowers, and verdant grass,
“ Whose bounteous hands feed the whole brute creation,
“ Knows all our wants, and has enough to give us.”

ROWE'S *Fair Penitent*.

EVERY creature that lives in the air, in the water, or upon the earth, has its part in the care of a divine Providence, to which it owes its preservation. Animals void of reason are endowed with organs, strength, and sagacity, suitable to their several destinations. Instinct warns them of what might be hurtful or dangerous ; and enables them to seek, to distinguish, and to prepare the food and habitation proper for them. All this is absolutely involuntary. It is not the result of reflection. They are irresistibly led on by a propensity, which a superior Power has given them for the preservation of their animal life. They find the food, and the retreats convenient for them ; and no species of animals is destitute of what is necessary for its welfare and sustenance. Men are of a more excellent na-

ture ; but they are born in a more helpless state ; and they require, beyond comparison, more assistance than most other animals ; their wants, their faculties, their desires are more numerous and great ; they are therefore distinguished by greater blessings, and more marked attentions of Providence. The earth, the air, and the water, the clouds, and the light of the celestial globes, contribute more abundantly, and in a more varied manner, towards their preservation. God has placed the irrational creatures under their command, in order to make them serve for their support and convenience. What particularly deserves our attention is, that every part of our globe which is inhabited, furnishes sufficient food for the creatures that live upon it. Admirable effects of divine Providence ! not only the fertile bosom of the earth, but also the vast plains of the air, and the depths of the sea, abound with food proper for the maintenance of the innumerable multitude of animals, that live and move in those elements. The treasures of divine goodness are inexhaustible !

The world does not decay. The sun returns with its accustomed light and heat : The fertility of the earth never diminishes : The seasons succeed regularly, and the earth never fails to pay its annual tribute of provision for the prefer-

vation and support of its innumerable inhabitants. Whether we consider the continuance of the profusion, or the variety of the means of sustenance, which nature every where provides, we perceive throughout, the traces of a beneficent and universal Providence. All things that surround us, and serve to sustain and procure us the sweets and pleasures of life, are so many visible means, so many channels through which our invisible Benefactor continually dispenses his favors. The agents of nature are the ministers which fulfil the designs of his Providence. The world is his magazine, and we take out of it all that is necessary for use. It is to his goodness, it is to his tender mercies that we are indebted for it.

“ Father of all beings, how extensive are thy mercies, how great, how inexpressible ! In thee we live, move, and have our being ; and thou sustaineest all things by thy mighty word ! The lot of mortals is in thy hand : they are only happy through thee. Thou art their sovereign good ; and thy paternal cares are over all mankind. It is by thy command that the zephyr cools and refreshes us, that the rose embalms the air with its perfume, that the most delicious fruits please our palates, that the dew of heaven revives us. Thou proportionest thy gifts to the

wants of thy creatures : Thou makest the righteous to feel the sweet and salutary effects of thy grace ! Thou givest to the bee its nectar in the flowers ; to the worm a drop to quench its thirst ; to the world the rays of the sun. O thou who possessest sovereign felicity, and dost not disdain to communicate happiness to the poorest insect, which could not exist a moment but by thy will ; permit me to raise to thee a new hymn, and deign to accept my weak lays ! Penetrated with joy and gratitude I will sing to thy name, magnify thy goodness, and pay thee due adoration, praise, and glory."



DAILY PROOFS OF GOD'S GOODNESS.

- " Almighty cause ! 'tis thy preserving care
" That keeps thy works forever fresh and fair :
" Thy watchful Providence o'er all intends ;
" Thy works obey their great CREATOR's ends."

BOYSE.

NOT to acknowledge the hand of Providence, but in extraordinary cases, is to betray our ignorance and weakness. In the ordinary course of nature things occur daily, which ought to excite our attention and admiration. The formation of a child is as great a miracle of the power and wisdom of God, as the creation of the first man formed out of the dust. Likewise the preservation of our life, if we reflect on the several causes and effects which combine for that purpose, is no less wonderful than the resurrection of the dead. The only difference between them is, that one happens but seldom, whilst we every day witness the other. This is the reason that it does not strike us more sensibly, or raise our admiration as it would otherwise do.

Undoubtedly my own experience ought to convince me fully that a divine Providence watches over the preservation of my days. I am not certain of a single moment of my life ; a thousand unknown and latent causes may hasten

the end of it, chill my blood, or stop my breath. Subject to so many evils, to so many wants both mental and corporal, I am thoroughly convinced that, were it not for the tender mercies of God, I should be a very wretched creature. The union of my body and soul, their reciprocal and continual action on each other are inconceivable, and depend neither on my will nor power. The beating of my pulse, the circulation of the fluids within me, goes on without interruption, and without my being able to contribute to it in the smallest degree. Every thing convinces me that my faculties, my state, the duration of my existence do not depend on my will. If my breath be not yet stopped ; if my blood still circulate ; if my limbs have not yet lost their activity ; if the organs of my senses have preserved their play ; if in this instant I have the faculty of thinking and the use of my reason ; it is to God alone that I am indebted for it. But why do I reflect so seldom, and with so little gratitude on the daily ways of Providence ? Ought not the reflections which now offer themselves to have been always imprinted on my heart ? Ought I not, at least, every morning and evening of my life to meditate on the benefits of my Creator ; to admire and bless him for them ? Divine preserver of my life ! I regard thy providence, and confide in thy mercy ; make me happy in thy favor !

REASONS FOR CONFIDENCE IN GOD.

“O He is good, He is immensely good,
“Who all things form’d, and form’d them all for man:
“Who mark’d the climates, varied every zone,
“Dispensing all his blessings for the best,
“In order and in beauty !”

SMART.

WHEN I reflect on the infinite perfections which are manifested in the plan of the universe, and on the manner in which God conducts and governs it, my confidence in him must necessarily be more and more increased and strengthened. How easy ought I to be in regard to my fate, since it is in the hands of that great Being, of whose power, wisdom, and goodness I have as many proofs as there are creatures before me? What wishes could I form for my happiness, which might not be fulfilled by that God whose unlimited power has been able to raise out of nothing so many millions of worlds? Are there any troubles, sorrows, or difficulties, from which I may not be happily delivered by that infinite wisdom which has spread the heavens, and formed every creature in so wonderful a manner?

What can hinder me from committing my way unto the Lord? What can prevent me from having recourse to him in all my troubles and distresses, and from hoping that he will hear my prayer? It is true that I am but a very weak creature; I am lost in the vast multitude of his works; and, when I represent to myself his greatness, and the infinite extent of his government, I often say to myself: Who am I that dare to hope that this great Being will always listen to me, and that he will deign to cast his eyes on me, every time that I may have recourse to him? But, on the other hand, I comfort myself, when I consider that his greatness, his majesty, and the government of so many millions of worlds, do not hinder him from extending his cares for the smallest worm. Why then may he not give some attention to me, who, though so insignificant, have received from him, both as a man, and as a Christian, prerogatives much superior to those of other creatures? Here my conscience stops me, and reproaches me with being a sinner, with having a thousand and a thousand times, wilfully transgressed the commands of my Creator and Maker; and, that therefore I am more unworthy of his goodness than the most abject of his creatures. My conscience represents the

justice of God to me in as strong colors as the whole universe paints to me his power and goodness. But it is here that the salutary truths of the gospel come to my assistance. It is only through our Redeemer that I can look up to this God, whose greatness all the world proclaims ; that I can, I say, look up to him as a father, put my trust in him, and hope that he will grant me happiness, not only in this life, but to all eternity.



REASONS FOR CONTENT.

———“ Nature’s skilful hand,
“ Drest up with sun and shade, and lawns and streams,
“ A mansion fair and spacious for its guest,
“ And full replete with wonders. Let me here,
“ Content and grateful, ripen for the skies.

MRS. BARBAULE.

LET sweet content take possession of our souls. God is good. Love and mercy shine through all his works. Let us contemplate his mighty deeds. The world, and all it contains, evidence his beneficence and wisdom. The heavens and the earth witness his power. The sun that rules by day, and the moon that shines by night, all things that have life or motion proclaim the mighty God. Consider the works of his hands. Men and brutes ; even the objects that appear least in our eyes, the blade of grass, and the grain of sand, teach us to know him. Oh ! how shall we worthily praise and exalt him, to whom we owe existence and life ? Our bodies, and the souls which animate them, are gifts of his hands. If we are a prey to adversity, if op-

pressed with sorrows, scarce do we feel the weight of them, when God enables us to support them. He grants us his assistance, and our evils are banished. O my soul thou hast long experienced this ! Let me never forget it, nor give way to the fear of being deserted by a God, who cannot hate his children. Let us therefore submit to his holy will. Let us bless him for all his dispensations ; persuaded that he will accomplish all his merciful designs ; for he is great in wisdom, and abundant in means.



REFLECTIONS ON THE ANIMAL CREATION.

“ Who taught the nations of the field and wood
“ To shun their poison and to choose their food ?
“ Prescient the tides, or tempests to withstand,
“ Build on the wave, or arch beneath the sand ?
—— “ God, in the nature of each being founds
“ Its proper bliss, and sets its proper bounds.”

POPE.

WE may consider the animal kingdom as a well governed state, in which there are a proper number of inhabitants, each in the place appointed for it. In this animal kingdom, the little and the weak which compose the greatest part of it, are subject to the strong and the powerful ; but the whole are subject to man, as to the representative of the Deity. Animals find, in every part of the earth, enough to employ them, and enough to feed on. They are accordingly dispersed every where ; and their nature, their organs, their several constitutions, are all adapted to the different situations designed them. Their employments differ greatly. All tend either to increase their species, to maintain an equal balance between the animal and the vegetable kingdom, to provide proper food, or to defend themselves against their enemies. The Creator has

given them an instinct to compensate for the want of reason. An instinct varied in a thousand ways, and according to their several wants; an instinct for motion, for food, to enable them to distinguish it with certainty, to find it out, to seize upon it, and to prepare it; instinct to build nests and proper habitations, to lay in provisions, to transform themselves; instinct for the increase of their kind; instinct to defend and secure themselves, &c. In each class of animals there are some which live on prey, and individuals which superabound in other classes. Each species has its particular enemies, which keep up the proper balance, and prevent any from multiplying too much. The sick animals, or those that have any defect, are generally the first which serve as food for others. The fruit and the carcases which corrupt are eaten up, the earth is not incommoded by them, nor the air infected. Thus nature preserves its beauty, freshness and purity. The beasts of prey have a make conformable to their destination. They are endowed either with peculiar strength, agility, industry, or address. But in order to prevent them from destroying whole species, they are confined within certain limits. They do not multiply so fast as other animals, and they often mutually destroy

each other, or their young serve as food for other creatures. Some sleep during winter, digest slowly, and feed on the productions of the earth for want of other food. The weaker animals are provided with defence in proportion to their situation, and the dangers to which they are exposed. Their natural arms, their swiftness, their habitations, their scales or shells, their cunning, preserve them from destruction ; and by these means the proper balance is always kept up, as to the number in every species of the brute creation.

The animals which give milk are the largest, and consequently the least numerous, but they fulfil very important offices. The smallest animals are the most numerous, and, in proportion, more voracious than the larger.

All we behold so admirable in the animal kingdom proves the existence of a Being who possesses the highest degree of wisdom and knowledge. Who but he could have peopled this immense globe with so many different species of living creatures, providing for them every thing necessary ? Who but he could give food to such infinite multitude of creatures according to their different tastes, and find them covering, and habitations ; and give them whatever they

require to guard and defend them, which they effect with so much address and sagacity, so many instincts and such industry? Who but he could have kept up the equal balance between so many different species and classes of animals? Who but he could appoint for each living creature the element suited to it? or form that amazing number of limbs, joints, bones, muscles, and nerves joined together, and placed with so much art, harmony and perfection, that each animal can perform its several motions, in the manner most convenient and best adapted to its way of life, and the different situations in which it is placed?

O Lord God Almighty! it is thou only who couldst do such things, and to thee belongeth all glory, praise and thanksgiving.

THE SPHERICAL FORM OF THE EARTH.

“ The form orbicular of earth he prov’d,
“ How in the ambient air ’twas poiz’d and mov’d,
“ How day and night alternate hence appear,
“ And varying seasons grace the rolling sphere.”

PEOPLE generally suppose the earth an even plain, a round flat surface ; but if that were the case, the exterior limits of this surface would be found out ; and in approaching any place, it would be impossible to see the tops of towers and mountains before the lower parts of them. The earth then must be a globe ; but it is not exactly and strictly spherical, for it is a little more raised at the equator and flatter towards the two poles, nearly resembling an orange. But that deviation from a spherical form is very inconsiderable, at most only thirty-four miles, which is scarcely perceptible in a globe, whose circumference is about twenty-five thousand miles, and diameter seven thousand nine hundred and twenty-eight. There will be no doubt of the figure of the earth being nearly spherical, if we consider that, in the eclipses of the moon, the shadow which the earth casts on that planet

is always round. Besides, if the earth were not round, how could they have sailed round it, or how should the stars rise and set sooner in the eastern than in the western countries? Here, again, is the wisdom of the Creator manifest. The form which he has given to the earth is the most proper and convenient for a world like ours, and for its inhabitants. Light and heat, so necessary for the preservation of creatures, are, by this mean, equally and uniformly distributed over the whole earth. From thence, also, proceed the returns of night and day, heat and cold, wet and dry, so constant and regular. The water, in the first place, is equally, distributed over the globe, and the salutary use of the winds is felt over every part of the earth. We should be deprived of all those advantages if our earth had any other form. In some countries it would be a paradise, in others a chaos; one part of it would be swallowed up in water, the other burnt up with the heat of the sun. In certain countries they would be exposed to furious tempests, which would destroy every thing, whilst they would be stifled in other places by the want of air, the current of which would be nearly stopped. One part of the earth would enjoy the benign

influence of the sun, whilst the other would be frozen with cold. What pride and ignorance should we not betray, if we did not acknowledge in this the hand of an almighty and beneficent Creator ? Should we deserve to inhabit a world, where all is so wisely ordained, if, like the brutes, we were insensible to this admirable plan, and to the numberless blessings which accrue from it ? No, my God and my Creator, let us never be guilty of such monstrous ingratitude. Filled with astonishment and admiration at the sight of thy works, we adore thy wisdom.

UTILITY OF MOUNTAINS.

* See how sublime the uplifted mountains rise,
" And with their pointed heads invade the skies.
" How the high cliffs their craggy arms extend,
" Distinguish States and sever'd Realms defend :
" From intercepted clouds collect the rain—
" And furnish springs and rivers for the plain."

BLACKMORE.

WOULD it not be more advantageous to our globe, if its surface were not so uneven, and if it were not disfigured by so many mountains ? We sometimes think that the form of the earth would be much more regular, that our sight would extend farther, that we should travel more conveniently, and enjoy many other advantages, if the earth were only one vast plain. but, perhaps, we are mistaken in this opinion. Let us then inquire into it, and reflect on the use of mountains, in order to see if there be any reason to be discontented with the present arrangement of our globe.

In the first place, it is evident that it is from the mountains and hills that the springs flow, which are produced either by heavy snows, or by the clouds with which those heights are often covered. They keep up the courses of great and small rivers. Those chains of high mountains which extend from east to west, and which traverse a great tract of country, serve to prevent the dispersion of vapors, and to condense them into water. They are as so many stills, which prepare and render the water sweet, for the use of man and beast. Their declivity gives a moderate fall to the springs, which, flowing thence, water and fertilize the vallies.

Besides this inestimable advantage of springs and fountains which the mountains procure us, they have many others. They serve for dwellings and afford subsistence to several kinds of animals which are useful to us. On the sides of mountains there grow trees, plants, and an innumerable quantity of salutary herbs and roots, which are not cultivated with equal success in the plains, or have not the same virtues. It is in the bowels of the mountains that metals and minerals are formed.

Mountains are, in a manner, the bulwarks of nature, to shelter countries against the fury of

seas and storms ; and, like ramparts and natural fortifications, they protect several states from the invasion of enemies, and the ambition of conquerors. They perhaps preserve the balance of our globe. It is true that some of these mountains are dangerous and formidable. They occasion many shocks and earthquakes ; and the volcanoes spread flames and destruction all around. But though there should be some inconveniences from them, yet these cannot furnish any reasonable objection against the wisdom and goodness of God in their formation ; since the blessings which we derive from them are greatly superior to the evils which they occasion. In this respect, then, we have no reason to complain of the contrivance of our globe. If there were no mountains we should be deprived of several sorts of stones and fossils. There would be no rivers, no springs, no lakes. We should want a great number of the finest and most salutary plants, and several sorts of animals. The privation of one single thing in nature might be sufficient to make our lives sad and miserable. Let us therefore conclude that mountains, as well as every other part of nature, prove the wisdom, power, and goodness of the Creator.

UTILITY OF RAIN.

“ The shadowing clouds distill the genial rain
“ Whose copious waters cheer the thirsty plain.”

IN the truest sense of the word rain deserves to be called a present from heaven. The blessings which our heavenly Father pours upon us by this mean are equally abundant and necessary for us. As the consequences of a continued drought would be fatal to us, so the advantages are equally precious which the refreshing showers afford.

The heat of the sun acts without interruption on the different bodies on the earth, and continually exhales thin particles from it, which fill the atmosphere in the form of vapors. We should breathe those dangerous exhalations with the air, if now and then they were not carried off by the rain, which precipitates them upon the earth, and thus clears and purifies the air. It is not less useful in moderating the burning heat of the atmosphere ; and the reason is very evident ; for the nearer the air is to the earth, the

more it is warmed by the reflection of the sun's rays ; and the farther it is from us the colder it is. The rain that falls from a higher region, brings to the lower a refreshing coolness, of which we always feel the agreeable effects when it has rained. It is also to the rain that we must partly impute the origin of fountains, wells, lakes, and rivers. Every body knows in what abundance we are supplied with those several sources of water in the wet and rainy seasons ; whereas they evaporate during a long drought. But to feel how useful and necessary rain is, we need only observe how the earth and vegetables languish for want of these fruitful showers, without which every thing would perish. Rain is in many respects the food of vegetables. It circulates in the finer veins, and in the vessels of plants and trees, and conveys to them those beneficial juices which preserve their life and give them growth. When it pours on mountains, it sweeps from them a soft rich earth, which it deposits in the vallies where it falls, and which it fertilizes.

God has planned all with wisdom, and the earth is full of his goodness. Such is, without doubt, the conclusion that we must all draw from these reflections. And if from these we be led

to adore and bless him, let us pursue the subject, that it may make a deeper impression on our minds.

What finer object can be presented to our sight than a clear and serene sky ! Is not that beautiful vault extended over us sufficient to fill every heart with admiration and delight ? But all the beauties of the sky would disappear, if, by the direction of the winds, the clouds should come and draw a thick curtain before us. What are the sentiments which such a revolution would create in us ? These are at least what it ought to inspire : However beautiful this scene which we contemplate with such delight, there are some incomparably greater, of which no cloud can deprive us, and which would make us ample amends for the loss of all others. For what are all the beauties of nature compared to the beauty of that great Being, in whose contemplation alone an immortal spirit can find felicity ! It is not without design that God sometimes deprives us for a while of those things which give us most pleasure. He then teaches us to seek our happiness in him, and to consider him as our sovereign good. Besides, are not those very privations often compensated by many outward advantages ? Those clouds which con-

veal from us the beauty of the sky, are the sources of beneficent rains, which render the earth fruitful. Let us remember this ; and every time that adversity makes our days gloomy and melancholy, let us be persuaded that even these misfortunes will become, in the hands of our heavenly Father, instruments of future happiness. Let us also consider rain as the image of the gifts of fortune : For beneficial as moderate rains may be they are equally hurtful if they last too long, or come unseasonably. So it is in respect to earthly goods, too great abundance of which might be the cause of our destruction. Let us therefore thank our heavenly Father for refusing us gifts, which we might afterwards find to be real punishments. Let us learn to be content with all the dispensations of a wise and gracious Providence in the government of the world. God only can know the manner in which his blessings can best be bestowed. He sendeth forth his commandments to the clouds, and they fly to execute the will of their Creator. Shall man dare to undertake to direct their course, though perhaps the least considerable part in the ordinance of the world ? How then can we be rash enough to blame the ways of Providence on much more important occasions ?

UTILITY OF RIVERS.

“ See how the streams advancing to the main
“ Through crooked channels draw their crystal train.
“ While ling’ring thus, they in meanders glide,
“ They scatter verdant life on either side.”

BLACKMORE.

WHEN we calculate the space which the rivers take up in our globe, we find that they deprive us of a great part of the continent. Some are discontent at this, and suppose that it would be better if there had been fewer rivers, and more land. But if they would only consider, with what wisdom, and in what due proportion the Creator has planned every thing upon our globe, they would conclude, that rivers have not been spread over the earth without good reason, and essential utility to men and other creatures.

It must be observed, in the first place, that the water of rivers affords a very wholesome drink to man. Spring or pump water, when it has been long and without motion under ground, loosens and insensibly carries away with it some particles of earth which might prove hurtful to the body ;

but river water, which is continually evaporating and always in motion, is purified from all dirt, and by that means becomes the most salubrious drink for men or beasts.

However, the utility of rivers extends still farther. Is it not to them that we owe the cleanliness, the wholesomeness, and comfort of our houses, as well as the fertility of our fields? Our habitations are always unhealthy, when they are surrounded by stagnant water, and by marshes, or when the want of water occasions a drought. The smallest rivulet cools the air around it, and makes it extremely agreeable; and what an astonishing difference between a country well watered, and one to which nature has denied this assistance! One is a barren dry desert; the other on the contrary, is in some sort a garden of delights, where woods and vallies, meadows and fields, present a thousand beauties, and the most pleasing variety.

How useful are they to commerce! Of how many machines and mills should we be deprived, if they were not put in motion by rivers! How many kinds of delicate fish we should want, if they did not furnish us with abundance of them!

But, it will be said, if there were no rivers, we should escape those inundations which do so

much mischief. But is this inconvenience sufficient to prevent rivers from being a blessing of Providence ? Do not the numberless advantages which accrue from them much exceed the harm which they sometimes occasion ? Inundations seldom happen, and they extend over very little country. Besides, those very inundations, enrich and fertilize the ground ; and, to an attentive observer, they are a proof that God blesses with one hand, whilst he appears to chasten with the other. Thus, then, the rivers ought to convince us of that divine goodness which is over all the earth.



OF THE OCEAN.

“ The Sea does next demand our view, and there
“ No less the marks of perfect skill appear,
“ What, but a conscious agent, could provide
“ The spacious hollow where the waves reside ?
“ Where barr’d with rock, and fenc’d with hills, the deep
“ Does in its womb the floating treasures keep ;
“ And all the raging regiments restrain
“ In stated limits, that the swelling main
“ May not in triumph o’er the frontier ride,
“ And through the land licentious spread its tide.”

BLACKMORE.

THE Ocean is that general collection of waters which surrounds the whole earth.

The chief things observable of it are its *vastness*, which is so considerable as to cover nearly two thirds of the surface of the globe ; its *depth* ; its *saltness* ; and its *tides*.

Its *depth* is not equal. In some places navigators can find no bottom with a line of more than seven hundred and eighty fathom.*

* The Compiler is happy in knowing that the subject of the deepness of the ocean has employed the investigation of the HON. JAMES WINTHROP, Esq. of Cambridge ; from whom the public may expect some ingenious, learned, and philosophic disquisitions upon this and other particulars in Physics which have discouraged or baffled former inquirers.

The ocean is *salt* in all parts of the world : but the degree of saltnefs differs much in different climates, and is greateft in the equatorial regions, where the heat of the fun is greateft, and confequently the evaporation of the water greateft. In the procefs of evaporation the faline particles are left behind, and hence the degree of saltnefs is increafed.

The *caufe* of the saltnefs of the ocean has been a fubject of inquiry among philofophers in almoft all ages, but it ftill remains undetermined.

As no accurate obfervations on the *degree* of saltnefs in particular latitudes were made till the prefent century, it is not poffible to afcertain what was the ftate of the fea at any confiderable diftance of time, nor confequently whether its degree of saltnefs increafes, decreafes or is ftationary.

For this property there appears an exceedingly wife and good reafon. Fresh water muft be in continual and quick motion to keep it from putrifying and ftinking ; but the channels of the ocean are fo large as render them incapable of a fwift current ; fo that it can have no more motion than is given it by the winds, the reciprocation of the tides, and the revolution of the earth about its own axis. To compenfate this want of

motion, therefore, the water is made salt, which produces the same effect as motion would do, and is separated from it when it is exhaled into vapors.

Of the *ebb* and *flood* of the ocean a more particular account will be given in the next article.

As the earth is full of the divine riches so is this great and wide sea. It is not an useless waste of waters, as some may ignorantly imagine. It is the grand reservoir whence the sun exhales the vapors, to lay them up in clouds as in store houses, to descend again in showers or sprinkling dews, to refresh the thirsty earth and nourish vegetation.

Again ; it is owing to the vastness of the ocean that the several countries all over the face of the earth are so well supplied with streams and rivers. And we may observe that instead of being a means of separation between distant countries, it is indeed the centre of commerce for all nations. For, whereas people could not go by land from one end of the world to the other without infinite fatigue, and numberless dangers ; by crossing the ocean in ships, the old world holds connection with the new, and they mutually supply each other with the comforts and conveniences of life.

* Hail thou inexhaustible source of wonder and contemplation ! Hail, thou multitudinous ocean ! whose waves chase one another down like the generations of men, and, after a momentary space, are immersed forever in oblivion ! Thy fluctuating waters wash the varied shores of the world, and while they disjoin nations whom a nearer connection would involve in eternal war, they circulate their arts and their labors, and give health and plenty to mankind.

“ How glorious, how awful are the scenes thou displayest ! Whether we view thee when every wind is hushed, when the morning silvers the level line of the horizon, or when its evening tract is marked with flaming gold, and thy unrippled bosom reflects the radiance of the overarching heavens ! or whether we behold thee in thy terrors ; when the black tempest sweeps thy swelling billows, and the boiling surge mixes with the clouds ; when death rides the storm, and humanity drops a fruitless tear for the toiling mariner whose heart is sinking with dismay !

“ And yet, mighty deep ! it is thy *surface* alone we view. Who can penetrate the secrets

“ This elegant apostrophe is taken from KEATE'S *Sketches of Nature*.

of thy wide domain ? What eye can visit thy immense rocks and caverns, that teem with life and vegetation ? Or search out the myriads of objects, whose beauties lie scattered over thy dread abyfs ?

“The mind staggers with the immensity of its own conceptions : and, when it contemplates the flux and reflux of thy tides, which from the beginning of the world were never known to err, how does it shrink at the idea of that divine power which originally laid thy foundations so sure, and whose omnipotent voice hath fixed the limits where thy proud wayes shall be stayed !”

ON THE TIDES.

“ So the moon charms her wat’ry world below,
“ Wakes the still seas, and makes them ebb and flow.”

LEE.

——“ To agitate and work the troubled deep,
“ And rolling waters from corruption keep ;
“ But not impel them o’er their bounds of sand,
“ Nor force the wasteful deluge o’er the land.”

BLACKLOCK.

THE greatest part of the surface of the earth is covered with water, which is called the sea ; and that immense collection is very distinct from lakes and rivers. These contain more or less water, according to the different seasons ; whereas in the sea the quantity of water is almost always the same ; but we observe the sea increase and decrease twice every day, according to certain rules. When it comes to a certain height in a port it soon begins to decrease : This decrease continues for six hours, and the sea is then at the lowest ebb. At the end of six hours it begins again to rise, and this increase lasts also

six hours ; at the end of which the sea has again attained its greatest height. Then it sinks again for six hours, to swell again for the same time ; so that in the space of twenty four hours the sea twice rises and falls, and is alternately at the greatest and least height. This regular and alternate motion of the sea, which rises towards the shore and withdraws again, is called flux and reflux.

When the sea swells and rises towards the coasts it is called the flux ; and the return of the water towards the main is called the reflux. It is a remarkable circumstance that the tide is regulated according to the course of the moon. The tide is greater and rises higher towards the time of the new and full moon, and is lower during the quarters. The motion of it is also much more considerable in Spring and Autumn than in the other seasons. On the contrary, the tides are much weaker during the solstices. This phenomenon is particularly observable in the ocean, where the water fills a great space ; but is much less so in limited seas, such as the Mediterranean. Finally, the interval between the flux and reflux is not exactly six hours ; it is eleven minutes more ; so that these revolutions do not happen the next day, at the same moment, but three

quarters of an hour later. They do not return, at the same hour, till the end of thirty days, which is the time from one new moon to another. What may be concluded on with certainty, from this constant and regular phenomenon, is that the flux and reflux have some connection with the motions of the moon.

It is always a pardonable ignorance not to be able to explain perfectly the laws and the course of nature ; but it is an inexcusable want of attention and gratitude not to reflect on the happy effect which those laws, and those great phenomena, have upon our earth, or to forget what we owe to the beneficent Father of Nature. One great advantage which we have from this perpetual waving of the waters, is to prevent it from stagnating or corrupting by lying still. It is true that the wind also contributes to it, but, as there is often a perfect calm in the water, there might result from it a putrefaction in the basin of the sea, which is the reservoir for all the waters of the earth to flow into. God has therefore ordered the flux and reflux to prevent hurtful things settling there. The motion of the water rising and falling attenuates and separates the corrupted particles, and by mixing and dispersing the salt, of which the sea is full, and which

would otherwise sink quickly to the bottom, preserve the purity of the whole body of water.

The phenomena of the tides have been well investigated and satisfactorily explained by Sir Isaac Newton and Dr. Halley, from the reciprocal gravitations of the earth, moon, and sun. As the earth and moon move round a centre of motion near the earth's surface, at the same time that they are proceeding in their annual orbit round the sun, it follows that the water on the side of the earth nearest this centre of motion between the earth and moon will be more attracted by the moon, and the waters on the opposite side of the earth will be less attracted by the moon, than the central parts of the earth. Add to this that the centrifugal force of the water on the side of the earth farthest from the centre of the motion, round which the earth and moon move (which as was said before, is near the surface of the earth) is greater than on the opposite side of the earth. From both these causes it is easy to comprehend that the water will rise on two sides of the earth, viz. on that nearest to the moon, and its opposite side, and that it will be flattened in consequence at the quadratures; and thus produce two tides in every lunar day,

which consists of about twenty four hours and forty eight minutes.

These tides will also be affected by the solar attraction when it coincides with the lunar one, or opposes it, as at new and full moon ; and will also be much influenced by the opposing shores in every part of the earth.

When the sun and moon are in the fyzygies,* or in opposition and conjunction, at the time of the equinoxes, we have the highest tides of all, because then the sun is in the plane of the equator, and the moon the same or very nearly so. But, as the earth is nearer to the sun in winter than in summer, these tides happen rather *before* the vernal equinox, and *after* the autumnal.

Let us now consider who has adjusted the motions of that unruly element with so much exactness and proportion ? A little more motion in the vast flood would drown whole kingdoms. Must it not then be a skilful, a divine hand, that has set to the sea its unmoveable boundary, which it has kept through a series of so many ages, and said to its proud waves, *hitherto shall you come, and no farther ?*

* These are the points of the Moon's orbit in which she is at *new* and *full*.

These reflections may also naturally remind us of a circumstance, which is much connected with this phenomenon : Our life is but a flux and reflux. It increases and decreases : Every thing is inconstant, and liable to change. Nothing is durable. There is no permanent joy, hope, or happiness. We swim in a rapid and inconstant river : Let us then take care not to be drawn into the abyss ; and let us endeavor to gain the happy port, the smiling and cheerful shores. On the other hand, let us bless God that our evils and anxieties are of short duration. An excessive and lasting grief or pain is as little compatible with our nature as a constant and perfect happiness. These changes are certainly an advantage to us. If we enjoyed, through the whole course of our lives, an uninterrupted tide of felicity, we might easily grow proud, and forget God. As, on the other hand, a continual train of disgraces and misfortunes would sink us entirely, and harden our hearts. Let us then bless our heavenly Father for his wise decrees ; and endeavor to conduct ourselves through life, in prosperity or adversity, in a manner worthy of our faith, and the hope of everlasting life.

EARTHQUAKES.

“ Know then, within this glóbe’s capacious womb
“ Are veins of living fire—imprison’d air—
“ Sulphureous streams with strong bitumen mix’d ;
“ These meeting and fermenting, next explode ;
“ All wild and rapid, through the laboring earth,
“ They pour resistless ; burst the solid cliffs,
“ And, through the yawning void that whelms at once
“ The tumbling city, mount and melt in air.”

OGILVIE.

OUR earth suffers two kinds of shocks ; one is occasioned by the action of subterraneous fires, and by the explosion of volcanos. These commotions are felt only at small distances, and only when the volcanos work before the entire eruption. As soon as the matter which forms the subterraneous fires comes to ferment and blaze, the fire makes an effort on all sides ; and if it do not naturally find a vent, it raises the earth and makes itself a passage by throwing it up with violence. But this sort of earthquakes extends only for the space of a few miles. They shake the earth like the explosion of a magazine of powder, which produces a shock, and a sensible

commotion at several leagues distance. But there is another sort of earthquakes, very different in the effect, and perhaps in the cause also. I mean those terrible ones which are felt at great distances, and which shake a long track of ground, without any new volcano, or any eruption appearing. There are instances of earthquakes which have been felt at the same time in England, France and Germany. Those extend much more in length than in breadth. They shake a chain or zone of land, with more or less violence in different parts, and are generally attended with a hollow noise like a heavy carriage rolling with rapidity.

The following observations may explain the causes of this sort of earthquakes : All inflammable matter susceptible of explosion, produces (as powder does) a great quantity of air, or elastic fluid. The air produced by fire is so very much rarified that it must cause very violent effects, when it has been long shut up and compressed in the bowels of the earth. Suppose then that at a very considerable depth, there should be combustible matter which should take fire by some means ; it must of course seek a vent ; and if it find none it occasions the most violent shocks. It is impossible to express how fatally dreadful

this sort of earthquakes is. Of all the desolations, of all the catastrophes upon earth, there are none so formidable, so destructive, and which so much baffle all human foresight and prudence, as these earthquakes. When rivers overflow their banks, and sweep away whole villages, there is still some resource ; it is possible to escape upon mountains, or to the upper part of houses : whereas the calamity of which we speak extends itself with an irresistible power over a whole country, and swallows up whole kingdoms and people, without leaving the smallest trace behind.

Lord God Almighty, who can stand before thee, when thou displayest thy power ! The earth trembles at thy presence. The foundations of the mountains are shaken. The hills are moved. Thy anger spreads like fire, and the rocks are split asunder before thee. Who would not fear thee, O Ruler of the earth !

Lastly, let us be convinced that every thing frightful or terrible in nature, all the apparent evil, all the imperfections of the world, have a wise intent. Great and Almighty Being, I will therefore adore and bless thy name, even when thou sendest thy plagues, and scatterest terror and desolation on the earth. I will do more. I

will rest with sure confidence upon thy fatherly care. Though even the world should be destroyed, though the mountains should fall and sink into the sea, thou shouldst still be my support, my strength, and my refuge.



SUNRISE.

——“Yonder comes the pow’rful king of day,
“Rejoicing in the east. The lessening cloud,
“The kindling azure, and the mountain’s brow
“Illum’d with fluid gold, his near approach
“Betoken glad.”

THOMPSON.

HAVE you ever been a witness of the superb phenomenon which the rising sun each day affords? Or has idleness, the love of sleep, or a faulty indifference, prevented you from contemplating this wonder of nature? Perhaps you may be ranked amongst the multitude of people who never thought a sight of the Aurora worth the sacrifice of some hours sleep. Perhaps you are like many others, who, satisfied with the light of the sun, do not trouble themselves with inquiring into the cause of this great effect. Or lastly, perhaps you are as insensible as millions of your fellow creatures, who have it in their power to behold this glorious object every day, see it without being struck with it, or without its raising any idea or pleasing reflection in their minds. It matters little in which of these you rank. Suffer yourself only to be now at last roused from this state of insensibility, and learn what thoughts the sight of the morning sun ought to excite in

your soul. There is no phenomenon in nature more beautiful and splendid. The richest dress that human art can invent, the finest decorations, the most pompous equipage, the most superb ornaments in the palaces of kings, vanish and sink to nothing when compared to this beauty of nature. At first, it is the eastern region of the sky which is clothed in the purple of Aurora, and announces the sun's approach. The air by degrees takes the bloom of a rose, and then shines with the lustre of gold. Afterwards the rays of the sun pierce through the mist, and with them light and heat are spread over the whole horizon. At last the sun appears in all the splendor of majesty. It rises visibly higher and higher, and the earth assumes a different aspect. Every creature rejoices, and seems to receive a new life. The birds, with songs of joy, salute the source of light and day. Every animal begins to move ; and all feel themselves animated with new strength and spirits.

Bless the Lord, O my soul ! Let my songs of praise also reach to the heavens where dwells the Almighty, by whose command the sun rises, and whose hand so guides its daily and its annual course as to produce the happy revolution of day and night and the regular succession of the seasons ! Raise thyself to the Father of lights, and proclaim his majesty !

THE RAINBOW.

—“ Refracted from yon eastern cloud,
“ Bestriding earth, the grand ethereal bow
“ Shoots up immense ; and every hue unfolds,
“ In fair proportion running from the red
“ To where the violet fades into the sky.”

THOMPSON.

WHEN the sun reflects its rays on drops of water which fall from the clouds, and we are placed with our backs to the sun, and with the clouds opposite to us, we observe a rainbow. We may consider the drops of rain as little transparent balls, on which the rays fall, and are twice refracted or broken, and once reflected. Hence proceed the colors in the rainbow. They are seven in number, and in the following order : red, orange, yellow, green, blue, purple, and violet. These colors appear so much the more lively, as the cloud behind is darker, and the drops of rain fall the closer. The drops falling continually produce a new rainbow every moment, and, as each spectator has his particular situation whence he observes this phenomenon,

it so happens, that two men cannot, properly speaking, see the same rainbow. This meteor can last only so long as the drops of rain that fall are continually replaced by others. To consider a rainbow merely as a phenomenon of nature, it is one of the finest sights imaginable. It is a picture the most beautifully colored of any which the Creator has exposed to our sight. But when we reflect that God has made this meteor a sign of his pardon, and of the covenant which he vouchsafed to make with mankind, we find subject for more than one edifying reflection. Again ; I have the rain pouring down before me, and the sun shining behind me. Such is the image of my life ! a mixture of sorrows and of joys ; now clouded with adversity, and now brightened with prosperity ; and through whose tears of affliction faith can discern *the sign of peace*, of brighter scenes the promise !

USE AND NECESSITY OF AIR.

“ Remark the Air’s transparent element,
“ Its curious structure, and its vast extent !
“ Its wonderous web proclaims the loom divine,
“ Its threads, the hand that drew them out so fine.
“ Its open meshes let terrestrial steams
“ Pass through, entic’d away by solar beams ;
“ And thus a road reciprocal display
“ To rising vapors and descending day.
“ This thin, this soft contexture of the air
“ Shows the wise Author’s providential care,
“ Who did the filmy structure so contrive
“ That it might life to breathing creatures give ;
“ Might re-inspire, and make the circling mafs
“ Through all its winding channels fit to pass,”

BLACKMORE.

AIR is that subtile and elastic fluid which pervades and furrounds all our globe. Without recapitulating the innumerable benefits derived from it in the animal and vegetable kingdoms, in the arts of life, and in the texture and cohesion even of inanimate bodies ; we shall observe, in general, that it is essentially necessary to the existence of every animal and vegetable. Not only men, quadrupeds, birds, fishes, reptiles, and the larger insects, but even fleas, mites, and the

minute eels found in paste or in vinegar, and the animalcules produced by infusing animal or vegetable substances in water, inevitably perish when deprived of this all vivifying element.

Even plants are furnished with numerous air vessels, or respiratory organs. They absorb and transmit air through every pore : and this element is so necessary to their existence that they do not vegetate in an exhausted receiver.

In short, air is of use to the life and breathing of all animated beings ; to the vegetation of plants ; to the motion of winged animals ; to the formation of vapors, rain, and winds ; to the raising and dispersing of those noxious effluvia which exhale from different bodies ; to the propagation and conveyance of sounds, and to give us the sense of hearing. Without air we could not be able to converse with each other, we should have no music, no smell, no light.

Farther : to the air is owing the refraction of the light, whence we derive the twilight, which in some measure supplies the place of the sun : and the gradual softening of the splendors of day into the darkness of night : a most wise and kind provision of the author of nature ; for an immediate transition from bright light to total darkness would be extremely painful and injurious to our eyes.

And, lastly, to the air we owe the winds, which are nothing else but air in motion, and are of such absolute necessity to the salubrity of the atmosphere, that, without the agitations they occasion we should be poisoned with noxious exhalations, experience showing how unfit corrupt and stagnated air is for respiration.

As the air we continually breathe is an universal menstrum, and of course liable to be impregnated with exhalations from every substance to which it has access, the great importance of personal as well as of domestic cleanliness is an obvious reflection. In building towns or houses, the situation, with regard to air, is a capital object. The vicinity of marshes ; of stagnating waters ; of manufactures of tallow, oil, &c. of butchers' stalls ; and of many other work houses where filth is generated and air contaminated, should be avoided or removed ; as they are the pests of our senses and the sickeners of our constitutions.

How grateful should we be to him who hath provided this fine elastic fluid as breath for all that live, and made it contribute to many of the uses and comforts of life !

Let all that have breath praise the name of the Lord !

REFLECTIONS ON WOODS AND FORESTS.

“ Shade above shade, a woody theatre.—

“ How many are the trees of GOD that grow

“ With leaves to heal us, and with fruit to feed !”

MILTON.

THE woods form one of the noblest pictures which the surface of the earth presents to our eyes. It is true, that at first sight, it is a wild sort of beauty. One only sees thickets of trees, and a dull solitude. But to a well informed observer, who thinks every thing beautiful that is good and useful, there will appear a thousand objects in them worthy attention. Nothing invites us more to reflect on the grandeur and beauty of nature than a solitary wood. The pleasing *shade and silence*, we enjoy, lead us to collect our thoughts, and awaken the imagination. The *number and variety* of the trees are the first objects which attract our eyes. They are less distinguished by their difference of height than by their different *stems, forms, and leaves*. The resinous pine does not excel in the beauty of its leaves, which are narrow and pointed ; but they last a long time, like the fir, and they preserve

their verdure in winter. The foliage of the linden tree, the ash, and the beech, is much more beautiful and varied : their green is admirable ; it relieves and charms the sight. The broad indented leaves of some of these trees form a fine contrast with the narrow fibrous leaves of others. We have but an imperfect knowledge of their manner of multiplying, and the use of their fruit.

How numberless the ways in which *wood* is useful ? The slow growing oak, the leaves of which are later than any other tree, affords the hardest and strongest wood ; which art has taught the carpenter, joiner, and carver, to work into a variety of useful forms, so durable as to seem to defy time. Lighter wood serves for other purposes ; and, as it is in more plenty, and grows quicker, it is also of more general use. It is to the forest trees we owe our houses, ships, and fuel, with many conveniences for furniture.

Divine wisdom has dispersed woods and forests in more or less abundance all over the earth. In some countries they are at great distances ; in others they take up several leagues, and raise their majestic heads to the clouds. The scarcity of wood in certain countries is compensated by its abundance in others. Neither the constant use made of it so lavishly by mankind, nor the

ravages of accidental fires, nor severe winters, have yet exhausted these rich gifts of nature; for even a few scattered trees, and humble copse, produce a forest in the short space of twenty years.

Is not the power and goodness of God visible in all this? How superior is his wisdom! If we had assisted at the creation, possibly we should have made many objections to woods and forests; we might have preferred orchards and fertile fields. But the infinitely wise Being foresaw the several wants of his creatures in their different situations. He vouchsafed to think of us before we could feel our wants, or were able to express them. He anticipated all of them. It is not left to the care of man to plant or keep up forests. Most other things are obtained only by labor. The ground must be ploughed and seeds must be sown. It costs the farmer much trouble and toil. But God has reserved to himself the trees of the forests. It is he who plants and preserves them. They grow and multiply independent of our care. They repair their losses continually by new shoots, and there is always enough to supply our wants. To be convinced of this, we need only cast our eye on the seed of the linden tree, the maple, and elm. From these little seeds

spring up those vast bodies which raise their heads to the very clouds. It is thou Almighty ! that fixeſt and maintain'eſt them during ages againſt the force of winds and tempeſts. It is thou that ſendeſt dew and rain ſufficient to make them annually renew their verdure, and in ſome meaſure to keep up a kind of immortality amongſt them.

O man ! thou art loaded with bleſſings. Lift up thine eyes towards the great Being who takes pleaſure in doing thee good ! The foreſts are monuments of his bounty, and thou muſt be guilty of the greateſt ingratitude, if thou art inſenſible to a bleſſing of which every moment may remind thee.

CONTEMPLATIONS ON THE STARRY HEAVENS.

—— “ Ye shining hosts
“ That navigate a sea that knows no storms
“ Beneath a vault unfullied with a cloud ;
“ Ye from your lofty elevation view,
“ Distinctly scenes invifible to man,
“ And fystems, of whose birth no tidings yet
“ Have reach’d this nether world.”

COWPER.

THE fky at night presents to us a fight of wonders, which muft raife the astonifhment of every attentive obferver. But whence comes it that fo few confider the firmament with attention ? I am willing to believe that, in general, it proceeds from ignorance ; for it is impoffible to be convinced of the greatness of the works of God without feeling a rapture almoft heavenly.

Raife your thoughts towards the fky. And let me inform you that each ftar which from hence appears to us no larger than a brilliant fet in a ring, is in reality an immense body, which equals the fun both in fize and fplendor ; and is probably not only a world, but alfo the centre, of a planetary fystem. It is in this light that we muft confider the ftars, which fhine

over our heads in a winter night. They are distinguished from the planets by their brilliancy, and because they never change their places in the sky. According to their apparent size they are divided into six classes, which comprehend altogether about five thousand stars visible to the naked eye. Telescopes have opened to us new points in the creation, since by their assistance millions of stars are discovered. But it would be a very senseless pride in man to try to fix the limits of the universe by those of his telescope.

If we reflect on the distance between the fixed stars and our earth, we shall have new cause to admire the greatness of the creation. Our senses alone make us already know that the stars must be farther from us than the planets. Their apparent littleness only proceeds from their distance from the earth, which distance cannot be measured. What then must the stars be ? Their prodigious distance and their brightness tell us, they are suns which reflect as far as to us, not a borrowed light, but their own light ; suns, which the Creator has sowed by millions in the immeasurable space ; and each of which is accompanied by several terrestrial globes, which it is designed to illuminate. All the stars being so many suns, which can give light, animation,

and heat to other globes, is it probable that God should have given them that faculty for no purpose ? Would he have created stars, whose rays can pierce even to the earth, without having produced worlds also to enjoy their benign influence ? God, who hath peopled this earth, which is a mere speck, with so many living creatures, would he have placed in the immense space so many desert globes ? No certainly : Perhaps each of these fixed stars, which we see by miriads, has its worlds moving round it, for which it has been created. Perhaps these spheres which we see above us, serve as abodes for different sorts of creatures ; and are peopled like our earth, with inhabitants who admire and praise the magnificence of the works of God. Perhaps from all these globes, as well as from ours, there rise continually towards the Creator prayer and hymns of praise and thanksgiving. It is true that these are only probable conjectures ; yet to every true lover of God these conjectures must be most agreeable and most delightful. How sublime is this thought, that, exclusive of the small number of rational creatures which inhabit this globe, there are infinite numbers of them in those worlds which appear from hence to be but mere luminous specks ! Beyond this world

there is an immensity, in comparison of which our globe, large as it is, must be reckoned as nothing. Souls without number exist there. All of them magnify the name of our great Creator ; all are as happy as their destination admits ; and perhaps aspire to a better world.

Let us stop here then, and reflect how great must be that Being who has created those immense globes ! who has regulated their course, and whose mighty hand directs and supports them ! And what is the clod of earth which we inhabit, with the magnificent scene which it presents us, in comparison with the beauty of the firmament ? If this earth were annihilated, its absence would be no more observed than that of a grain of sand from the sea shore. What are provinces and kingdoms in comparison with those worlds ? Nothing but atoms, which play in the air, and are seen in the sunbeams. And what am I, when I reckon myself among this infinite number of God's creatures ? How am I lost in my own nothingness ! But however little I appear in this, how great do I find myself in other respects ! " How beautiful this starry firmament, which God has chosen for his throne ! What is more admirable than the celestial bodies ! Their splendor dazzles me ; their beauty enchants

me. However, all beautiful as it is, and richly adorned, yet is this sky void of intelligence. It knows not its own beauty; whilst I, mere clay, which God has moulded with his hands, am endowed with sense and reason." I can contemplate the beauty of those shining orbs. Still more, I am already, to a certain degree, acquainted with their sublime Author; and I partly see some rays of his glory. I will endeavor to be more and more acquainted with his works, and make it my employment, till by a glorious change I rise above the starry regions.

SENTIMENTS WHICH THE CONTEMPLATION OF
THE SKY EXCITES.

" The spacious firmament on high,
" With all the blue ethereal sky,
" Spangled with stars, a shining frame,
" Their GREAT ORIGINAL proclaim."

ADDISON.

WHO but a spirit of unlimited intelligence and power, could have formed that superb vault over our heads ? Who could have given motion to those immense globes ; that perpetual motion of inexpressible rapidity ; a motion which even the smallest grain of sand could not have of itself ? Whence proceeds that connection, that beauty, and harmony, which shine through every part of the whole ? Who prescribed to those immense bodies, those laws which could not be discovered but by minds endowed with the greatest sagacity ? Self existing, independent, and eternal Being ! it is to thee the celestial bodies owe their existence, their laws, their arrangement, their power, and all the advantages which they procure to the earth.

What sublime ideas must rise in our souls, when we think of these great objects ! If the heavens and all their host have so much magnificence, beauty, and majesty, that the eye can never be satisfied with contemplating, nor the mind with admiring them, what must be *thy* beauty THOU ETERNAL BEING, of whose splendor and glory these creatures are but faint and imperfect images ! What must be the incomprehensible extent of *thy* knowledge and understanding, since thou seest with one glance the whole immense space, all the numberless bodies in it, and art so intimately acquainted with the nature and properties of all the beings which thou hast placed there ? What depths of wisdom and knowledge must be in thee, O LORD ! who hast formed such admirable plans ! how great must thy power be, to be able to guide and direct, according to thy will, the most immense bodies ! to animate all by thy breath ! and to preserve all by thy almighty word !

THE BLUE COLOR OF THE SKY.

“How clear the cloudless sky ! how deeply ting’d
“With a peculiar blue !”

THOMPSON.

To judge merely by our senses we might imagine the sky over our heads to be a great vault painted blue, and the stars so many little brilliant nails stuck in it. The reason of it is that our atmosphere is not quite transparent. If we were raised very high above the surface of the earth, we should find that the air becomes more and more subtile, till we could no longer breathe in it ; and it would at last end in pure æther. The higher we climb on mountains the lighter the atmosphere grows, and the darker the bright azure of the sky appears. If we could rise as high as pure æther, this color would be entirely lost. The sky would seem to us as black as at night ; for all objects that do not transmit to us any rays of light appear so.* Consequently, if the air that surrounds us were as transparent as æther, the sky would not appear blue to us.

* We are informed by travellers, who have been on the high Alps, that the sky looked as black as jet.

The blue color of the sky is occasioned by the disposition of the atmosphere to reflect towards the earth the blue rays of light more copiously than the rays of other colors. However pale and slight the blue rays of light may be, there falls so great a quantity of them on our eyes, when we are in the open air, that the effect resulting from them is rather a dark blue.

These reflections may make some consider the sky differently from what they had done before. It may from hence be concluded that, even to the very color of the sky, there is no phenomenon in nature, in which we may not discover order, utility, and a wise purpose. As the color of green is most agreeable that the Creator could have chosen for the ornament of the earth, so is the fine azure blue of the sky the best calculated to charm the eye. How dreadful is the appearance of the sky when covered with stormy clouds ! but what beauty, majesty, and simplicity in the color of it, when the weather is calm and serene ! The apartments of kings, decorated by the most skillful painters, are nothing when compared to the majestic simplicity of the celestial vault. When the eye has for any time contemplated the beauties of the earth, it is fatiated and tired ; but the more we contemplate the heavens the more charms we find in them.

OF THE SUN.

“ Now Phœbus mounts triumphant in the skies,
“ The clouds disperse and gloomy horror flies :
“ Darknefs gives place to the victorious light,
“ And all around is gay and fair and bright.”

LANSDOWN.

OF all the parts of the system of the world the Sun is the most interesting to us. It is of a spherical figure, and is composed of a luminous substance which seems to be inexhaustible. By means of good telescopes spots have been discovered on its surface, which by their motion, shew that it turns round its axis in about twenty five days, ten hours. The sun is about ninety five millions of miles distant from the earth, and about 1,400,000 times as great as the earth, the circumference of which is about 25,000 miles. It illuminates twenty one opaque globes called planets, which revolve round it at different distances, and in different periodic times : seven of these are called *primary*, and fourteen *secondary* planets.

The Sun was long supposed to be an immense globe of fire ; but Herschel, who has paid great attention to his spots, considers that luminary as similar to the planets, and not a flaming orb. He calculates some of its mountains to be two hundred leagues in height. According to this Astronomer, the atmosphere of the sun is composed of different elastic fluids, some of which are luminous or phosphoric, others simply transparent. The former give the sun the appearance of a mass of light or fire ; while the latter, being only transparent, suffers his body to be seen : hence the maculæ or spots. He also, farther, conceives the sun to be inhabited, as there is reason from analogy, to suppose all the planets are.

It is ascertained that light employs about eight minutes in its passage from the sun to the earth. This is an astonishing velocity ; it is moving through a space of ninety five millions of miles in eight minutes, which is about a million of times swifter than a cannon ball when it is first projected from the mouth of the piece ; a rapidity too great for the imagination to follow, or the mind to comprehend. And yet, surprising as such a motion appears, there may be stars whose

light has not reached us since the creation of the world.

Notwithstanding the vast floods of light and heat which the sun has continued to send forth every moment from its first creation, it still remains undiminished, and as strong and diffusive as at the first day. Well might the Prophet cry out "*Great is the Lord who made it !*" What must HE be who dwelleth in light inaccessible and full of glory, whose works are so numerous, so splendid, and so august !

 PLANETARY SYSTEM.

—— “ Seiz’d in thought, I mount,
 “ From the green borders of the peopled earth,
 “ And the pale moon, her duteous fair attendant ;
 “ From solitary mars ; from the vast orb of jupiter ;
 “ To the dim verge, the suburbs of the system,
 “ Where cheerless saturn, midst his wat’ry moons,
 “ Girt with a lucid zone, in gloomy pomp,
 “ Sits like an exil’d monarch.”

MRS. BARBAULD.

By the *Solar* or *Planetary System*, is meant the order and disposition of the several heavenly bodies which revolve round the sun, as the centre of their motion, and receive from it their light and heat. These celestial spheres consist of planets and comets. Under the denomination of planets are comprised *Mercury*, *Venus*, *the Earth*, *Mars*, *Jupiter*, *Saturn*, and *Herschel*.

By the motion of the dark spots visible on the planets, we know that they revolve round their axes.*

* The *axis* of a planet is a line imagined (for the sake of apprehension) to be drawn through its centre, about which it revolves. The extremities of this line, terminating in opposite points on the surface of the planet, are called its *poles*. That which points towards the northern parts of the heavens is called the *north pole* ; and the other, which points towards the southern part, is called the *south pole*.

I. The nearest planet to the sun is MERCURY which is in a manner lost in its rays, and therefore is seldom seen, and is the least known of all the planets. It is 36,387,583 miles distant from the sun ; and performs its annual revolution in eighty seven days, twenty three hours, fifteen minutes, and forty four seconds. It is 3,189 miles in diameter ; and in bulk thirty times inferior to our earth.

That all the planets are inhabited is, from analogy extremely probable ; and though the heat of this must be seven times greater than our *torrid zone*, the animals and vegetables are no doubt proportionably tempered by omnipotent wisdom to endure it.

II. VENUS is the next ; which is called the *morning star* when it rises before, and the *evening star* when it sets after the sun. Venus is 67,993,362 miles distant from the sun ; performs its annual revolution in two hundred and twenty four days, sixteen hours, forty nine minutes, and eleven seconds ; a diurnal rotation in twenty three hours and twenty minutes ; and is 7609 miles in diameter.

Being twice as remote from the sun as Mercury, the light and heat of Venus, though twice as

much as in our Earth, are about a fourth part less than in Mercury.

III. Next is the EARTH, which is 94,000,474 miles distant from the sun : performs its annual revolution in three hundred and sixty five days, six hours, nine minutes, and twelve seconds ; its diurnal in twenty three hours, fifty six minutes and four seconds ; and is in diameter 7928 miles.

The earth is accompanied by a secondary planet called the *moon*, which revolves round it in a particular orbit, and accompanies it in its annual revolution round the sun.

The path traversed by the earth, which, in astronomical language is called its *orbit*, appears to be that of the sun ; and therefore, at any time to denote the sun's place in the heavens ; astronomers have divided the whole circle of the earth's motion into 360 equal parts, which they term *degrees*, and every thirty of these a *sign*, of which last there are twelve. The orbit of the earth is also called the *ecliptic* ; because being the visible path of the sun, all the eclipses must happen in it. And being oval or elliptical, the earth must at some times approach nearer to the sun than at others, and must likewise, for the same reason, take more time in moving through one part of its path than another : consequently

the earth is longer in traversing one half than the other of its orbit. The rotation is more rapid in the winter than in the summer, by eight days : but although in winter we are nearer to the sun, yet in that season it seems farthest from us, and the weather is more cold and inclement ; the reason of which is that in summer the rays of the sun fall directly upon us, in winter they are transmitted obliquely. It might be expected that as the sun is less distant in winter than in summer, it should appear to us larger ; but the difference of situation is so small as to make no sensible alteration in its apparent magnitude.

IV. The planet MARS is 143,227,582 miles distant from the sun : performs its annual motion in six hundred and eighty six days, twenty three hours, thirty minutes, and thirty six seconds ; and its diurnal motion in twenty four hours and forty minutes. It is in diameter 5195 miles.

Its days and nights are always nearly of the same length, because, its axis is nearly at right angles to the plane of its orbit. Its year is almost twice as long as ours, but with little variety of seasons. The quantity of light and heat which this planet receives from the sun is not half so much as ours. Mars seems to have

around it an atmosphere, as the earth has ; which is argued from the fixed stars appearing obscure when they are seen just by its body.

This planet is distinguished by a fiery red complexion ; which proceeds either from the matter of which its globe is composed, or from a very thick atmosphere.

It is the only planet above venus that traverses the heavens destitute of attendants.

When in opposition to the sun it is five times nearer to us than when in conjunction with it : hence it is that it appears so much bigger at one time than another.

v. Next to mars rolls the great and astonishing orb of JUPITER ; which is 471,974,585 miles distant from the sun, and consequently its light and heat are about thirty two times less than ours. It performs its annual revolution in eleven years, three hundred and fourteen days, fourteen hours, and its diurnal rotation in nine hours, and fifty six minutes. Its year is equal to almost twelve of ours ; but without any considerable change of seasons : yet the days and nights are computed to be only five hours in length.

This planet is superior in bulk to all the others united ; being 92,414 miles in diameter, which exceeds the earth by a thousand times.

Besides abundance of spots which may be seen on the surface of Jupiter, it appears to be surrounded with several belts, or girdles, which are parallel to its equator and to one another ; and are variable both in respect to their breadth and their relative distances. Sometimes they appear wider, sometimes narrower ; sometimes they are nearer, and sometimes farther off from one another : their nature and use are hitherto undetermined.

Jupiter is enlightened by four moons, two on each side ; each of them considerably larger than that with which we are supplied.

VI. The planet SATURN is 896,705,301 miles distant from the sun : performs its annual revolution in ten thousand seven hundred and fifty nine days, one hour, fifty one minutes, and eleven seconds ; and its diurnal rotation in ten hours and sixteen minutes. It is 78,236 miles in diameter.

This planet is remarkable for the prodigious circle that surrounds it, commonly termed its *ring* ; the distance of which from the body of saturn is computed to be 21,000 miles, and its breadth 29,000. The component materials of this ring are unknown ; but it is supposed by some means to supply light and heat to the planet. Saturn is attended by five moons, of which

the nearest is 82,000 miles distant, and the most remote 1,964,000 miles. The year in saturn is about twenty nine and an half of our computation. But the length of its days and nights is not ascertained, because the great distance of the planet has eluded every endeavor to discover whether it revolves round its axis.

VII. The seventh, and last, primary planet is HERSCHEL, (so named from the gentleman who first discovered it on the 13th of March, 1781.) It is 1,783,698,244 miles distant from the sun : performs its annual revolution in eighty three years, one hundred and fifty days, and eighteen hours. Its diameter is about 33,954 miles, and consequently it is about eighty times as big as the earth.

The light of this planet is of a bluish white color, and in brilliancy between that of the moon and venus.

To a good eye, unassisted by a telescope, this new planet appears like a star of the fifth magnitude. On account of the immense distance of Herschel from the source of light and heat to all the bodies in our system, it was highly probable that it was attended by satellites or moons, and accordingly the high powers of the discoverer's telescopes have enabled him to distinguish several.

OF THE MOON.

— “The moon’s full eye
“Opes through a cloud, and looks around the sky.”

THE MOON, next to the sun, is, of all the celestial bodies, that which has the most salutary influence upon our globe; and, if it were not in itself an object worth our attention, it would become so at least by the great advantages which we derive from it.

Even with the naked eye we can discover several phenomena of the moon. It is a round opaque body, and shines only by reflecting the light of the sun, therefore whilst that half of it which is towards the sun is enlightened, the other half must be dark and invisible. Hence, it disappears when it comes between us and the sun, because its dark side is then towards us. When it is gone a little way forward we see a little of its enlightened side, which still increases to our view, as it advances, until the moon comes to be opposite to the sun, and then its whole enlightened side is towards the earth, and it appears with a round illuminated orb, which we call the

full moon ; its dark side being then turned away from the earth. From the full, it seems to decrease gradually, as it goes through the other half of its course, showing us less and less of its enlightened side every day, till its next change, or conjunction with the sun, and then it disappears as before.

But what the naked eye may observe in the moon is not to be compared to what we discover by the assistance of telescopes and calculations. How much are we obliged to those enlightened men, who, to extend our knowledge, and to render the glory of our Creator more and more manifest in the eyes of mankind, have made inquiries and discoveries which enable us to form the highest notions of the celestial bodies ? By means of their laborious observations we now know that the moon, which appears to the naked eye so small, is, nevertheless, considerable, with relation to the earth. Its diameter is two thousand three hundred and twenty-six miles, its proportionable size as one is to forty-nine, and though the moon is nearer to us than any other planet, it is two hundred and forty thousand miles distant from this earth.

There are several spots in the moon visible to the naked eye. Some of these spots are pale and

dark ; others are more or less luminous, according to the light which they reflect. The bright spots are probably high mountains, which reflect the light of the sun from their tops ; and the dark spots are probably vallies into which the shadows of the mountains fall. These discoveries, to which no solid objection can be made, prove that the moon is not so inconsiderable a body as ignorant people imagine. The size, the distance, and all that we know of it, give us, on the contrary, a new proof of the unlimited power and wisdom of our Creator. But was a planet so large as the moon designed for no other purpose than to light our globe for some nights ? That body, which to all appearance resembles our earth, and seems proper for the same ends, was it created only to produce the flux and reflux of our seas, and for some advantages to our globe with which we are still unacquainted ? Is it probable that a surface of some millions of leagues should be without any living creatures ? Would the supreme Being have left that immense space an empty desert ? It would be inconsistent with the wisdom and goodness of God. Let us rather believe that God has established his empire in that planet, as well as amongst us. Without doubt there are inhabitants upon it, who adore

with us the same Lord and Father, who are, like us, the objects of his providential care, and for whose happiness God provides with the same goodness as he does for ours. But as our knowledge in this respect is still very imperfect, let us confine ourselves to the advantages which accrue to us from the moon. The goodness of Providence towards man manifests itself very sensibly in this case. The moon is placed near us that it alone may shed more light upon our earth than all the fixed stars together. We derive from it, not only an agreeable object, but a thousand conveniences and advantages. In what disorder and confusion should we be, in regard to the division and measure of time, were it not for the regularity with which the changes of the moon succeed one another? The calculations of Astronomy, and the use of almanacks, are owing to the observations made on the course of the moon.

Almighty God! I adore by the light of the moon, as by that of the sun, thy wisdom and goodness. The more I contemplate the heavens, which thou hast formed, the more I am filled with wonder and admiration!

ECLIPSES OF THE SUN AND MOON.

————— “ Shorn of his beams, the sun
“ In dim eclipse difast’rous twilight sheds
“ On half the nations.”

MILTON.

AN eclipse of the sun is an effect entirely natural. It is caused by the moon’s shadow falling upon the earth. But it can only take place when the moon, which is an opaque body, and dark in itself, comes nearly in a direct line between the sun and the earth. It then conceals from us part or the whole of that globe. The former is called a partial eclipse, the latter a total eclipse. Thus, the solar eclipse is nothing more than the situation of the earth when the moon’s shadow falls upon it. We must not imagine that the sun is at that time really darkened: it is only concealed from us. It retains its usual splendor; and all the difference is, that the rays which issue from it cannot reach us, because the moon is placed between the sun and our globe. This is the reason that a solar eclipse is never visible at the same time in all parts of our earth; it is greater in one country than in another, and, in some places, it is not seen at all.

Not only the moon sometimes darkens our earth, but the latter also casts its shade upon the moon, and by these means intercepts the rays of the sun from it, either wholly, or in part, and this is called an eclipse of the moon : but it can only take place when the moon is at one side of the earth and the sun at the opposite side, and consequently when it is full moon. As that planet is really darkened by the shadow of the earth, the eclipse is perceived at the same time on all the points of an hemisphere of our globe. Some people may perhaps ask, of what use are the eclipses of the sun and moon ? To those who do not calculate the utility of natural things merely from the immediate advantages which they derive from them, the eclipses are of important use. It is by their means that the true position and distance of towns and countries are known, and that we have been able to trace accurate maps of the remotest countries. Eclipses, if well observed, serve also to confirm chronology, and to direct the navigator, by shewing him how far he is from the east or west.

These advantages however unimportant they may appear, are nevertheless, truly essential ; and without them we should be deprived of a part of our happiness.

*COMETS.**

"Thy hand to Comets mark'd the eccentric track
"Throughout the vast illimitable void ;
"Assign'd their periods, check'd their dire career,
"While atheists learn to tremble and adore."

COMETS are a large and numerous class of planets that perform their revolutions round the sun in figures extremely elliptical, sometimes approaching it much nearer than the orbit of mercury, at other times proceeding far beyond that of saturn, consequently at some periods they possess vastly more light and heat than the nearest planets to the sun, and at others, are proportionably more cold and dark than the most remote.

Yet notwithstanding their prodigious eccentricity, and their power to sustain without injury, the most violent extremes of heat and cold, they are by no means such large bodies as these

* Principally extracted from "The young Gentleman and Lady's Magazine," Vol. 2. page 274.

Those who would examine this subject, will obtain the most complete information from a very ingenious "Essay on Comets" by Andrew Oliver, jun. Esq. of Salem, Massachusetts.

circumstances, and their portentous appearance in the heavens, would persuade us : It is their tail that creates the idea of their vast magnitude. The bulk of the largest comet is not supposed to be much greater than the moon, and it is calculated that some of them are smaller.

Of these irregular and astonishing bodies, forty or fifty have been observed by astronomers in various periods of the world, all perpetually moving through millions of miles in infinite space, and appearing at uncertain times to the inhabitants of the earth ; and it is at least very possible that there may be many more existing in our system which perform their vast and inconceivable revolutions, visible by other parts of the creation, though not by us.

Comets consist of a solid and opaque substance, as they have been discovered to shine only by the reflection of the sun, like the other planets. They are likewise of a much greater density than the earth ; for some of them are heated in every period when they approximate the sun to such a degree as would vitrify or dissipate any substance known to us. Sir Isaac Newton computed the heat of the comet which appeared in 1680, to be, when nearest the sun, 2000 times hotter than red hot iron ; and that, being

thus heated, it would retain its heat until it appeared again to us, although the distance of the time should be 20,000 years, whereas its computed period is only 575 years.

It was then 167 times nearer than the earth, and 65 times nearer than mercury to the sun. The light and heat, therefore, of the comet at that time must have been at least 4000 times superior to those of mercury, and no less than 28,000 times greater than in our torrid zone.

Leaving this contiguous situation, it took its course to the distance of 11,200 millions of miles from the sun ; which is at least fourteen times farther from it than the orbit of the most remote planet saturn ; consequently the light and heat of the comet at this time were nearly 200 times less than at saturn, and above 17,000 times less than with us. Thus the light and heat of saturn were much more intense, compared with the comet, than ours are, compared with saturn.

The tail of a comet which has vulgarly received that denomination, because it follows the body as an appendage to it, is supposed to be the redundant heat it receives in its approach to the sun, emitted from the atmosphere of the comet.*

* Judge Oliver in his Essay on Comets has proved that "the *tails* of Comets are nothing more than expansions of

Of all the comets, the periods only of three are known with any degree of certainty. The first of these appeared in the years 1531, 1607, 1682, 1758, and will appear every 75th year. The second of them appeared in 1532, 1661, and 1789, and may be expected every 129th year. The third, having appeared last in 1680, and its period being 575 years, cannot return till the year 2225.

Of what terrible consequence these stupendous phenomena might be to this, and most probably to other planets, without the providence of the Creator, may be conceived from this circumstance. Several comets have approached very near to the orbit of the earth, particularly that in 1680; which on Nov. 11, at one o'clock in the afternoon, was at so small a distance, that had the earth been about that part of its orbit, the whole planet and all its inhabitants, would have been consumed by fire. The excessive heat might probably have converted the matter of the present earth into a different

their atmospheres, &c." 9, v. page 68; and his reasoning is to shew that "in consequence of these curious appendages comets may be *inhabited worlds*, and even comfortable habitations; notwithstanding the vast eccentricities of their orbits."

kind of substance, and have rendered it an habitation adapted to beings of a nature totally different from us.

But, although such an event is possible in nature, yet certain circumstances rest it on a mere and very unlikely chance whether it will ever happen in any definite time ; for the planes of all the cometary orbits are raised above those of the planets, so that there is but one particular place in the orbit of a comet where its tail can pass over the orbits of the planets ; and it is so many chances to one that a planet should be in this part of its orbit at that particular time, that there is but little reason to fear such a catastrophe.

The astonishing courses that the comets perform in empty space, and particularly that of 1680 (which in the part of its orbit nearest the sun flies with the amazing swiftness of 880,000 miles in an hour) suggests to our minds an idea of the vast distance between the sun and the nearest fixed stars ; of whose attractions all the comets must keep clear, in order to return periodically and move round the sun : and it likewise demonstrates that the nearest fixed stars, which probably are those that seem the largest are as big as our sun, and of the same nature

with it ; otherwise they could not appear so bright and large to us at so immense a distance.

“The *diurnal motions* of the planets are performed nearly in the same directions with their annual ; both motions, in all as far as they have been discovered, being direct, or from west to east : whereas the diurnal motions of comets are performed contrary to this rule. Planets and comets differ also in other particulars. The *annual motions* of the former are all direct, and are apparently confined within the limits of the zodiac, the latter move indifferently in all directions through the heavens. The *periodical revolutions* of the former are made in orbits nearly circular, those of the latter are prodigiously eccentric, and nearly parabolical. All which seem wisely to be ordered, that a multitude of worlds may exist at the same time, and be enlightened, warmed, and rendered prolific by the rays of the same sun, without interfering in their motions, or disturbing the harmony of the system.”*

“These exotic stars serve to raise in our minds most sublime conceptions of God, and particularly display his exquisite skill. The motions of many comets being contrary to those of the planets, shew that neither of them proceed from

* Judge OLIVER's Essay on Comets, page 81.

neceffity or fate, but from choice and design. The fame thing is to be feen in the figure and fituation of their orbits ; which indeed have not the appearance of regularity, as thofe of the planets, and yet are the refult of admirable contrivance. By means of their great eccentricity, they run fo fwiftly through the planetary regions as to have but very little time to difturb their own motions, or thofe of the planets. And this end is ftill more effectually anfweved in thofe comets whofe motion is retrograde, or contrary to that of the planets. In this cafe, the *relative* velocity where-with the comet and planet run by each other is the *fun*, but, when comets move the fame way as the planets, it is the *difference*, of their real velocities. By this great eccentricity, likewise, as well as by the very different fituation of their planes, they are at vaft diftances from each other in their aphelia ; where their motions are fo flow and their gravitation to the fun fo weak, that their mutual gravitation might produce irregularities, and perhaps throw the fyftem into confufion ; which this precaution has guarded againft.”*

That the comets are inhabited by rational beings, or, indeed that it is poffible for creatures

* Profeflor WINTHROP’S lectures on Comets, p. 49.

such as we can conceive to exist in them, seems, on the first consideration, to be a position the least likely to be advanced or admitted. But when we reflect on the infinite power and goodness of the Deity, the latter inclining, the former enabling him to make creatures suited to all states and circumstances ; that matter exists only for the sake of intelligent beings ; and that wherever we find it we always perceive it pregnant with life, or subservient to that purpose ; when we consider the numberless species, the astonishing diversity of animals in earth, air, water, and even on other animals ; every blade of grass, every tender leaf, every natural fluid, swarming with life, and every one of these enjoying such gratifications as the nature and state of each require ; when we farther reflect that some centuries ago a great part of the earth was judged uninhabitable, till experience undeceived us ; the torrid zone, on account of its excessive heat ; and both the frigid zones by reason of their extreme cold ; it seems highly probable that such numerous and large masses of durable matter as the comets are not (however dissimilar to our earth) destitute of beings capable of contemplating with wonder and acknowledging with

gratitude the wisdom, symmetry, and beauty of the creation, which is more plainly to be observed in their extensive tour through the heavens, than in our confined circuit. Yet however difficult it may be for us, circumstanced as we are, to discover their particular designation, this is an undoubted truth, that wherever the Deity exerts his power, there also he manifests his wisdom and his goodness.

It may not be unentertaining to the curious reader to peruse a very remarkable passage translated from a work remaining of the heathen philosopher Seneca, on this most interesting subject, especially as it closes with a remark that, by the event, appears to have been written in a prophetic spirit.

“ I cannot,” says this ancient and celebrated sage, “ assent to our philosophers in thinking that the comets are fires suddenly kindled, which appear for a time, and are then extinguished, on the contrary, I esteem them among the eternal works of nature. And why should we wonder that comets, which are so rare a spectacle in the world, are not yet restricted by certain laws ? and that the times of their appearing and disappearing are unknown, considering the courses they take through such prodigious intervals of

space? The time will come when the diligence of a future age shall discover those things which are now concealed. The day shall arrive in which posterity will be surprised that we were ignorant of matters, that to themselves are rendered so intelligible. *A person shall arise who will demonstrate into what region the comets wander, why they move so separately from the rest of the planets, and what is their nature and magnitude.** This person was Sir ISAAC NEWTON! After many centuries elapsed with little insight gained into the true constitution of these bodies, and none at all into their real motions, this great genius arose, and with a strength of mind peculiar to himself

“Pursued the comets where they farthest run,

“And brought them back obsequious to the sun,”

as POPE has happily expressed it. Formed to penetrate into the most abstruse recesses of nature, he traced these unknown travellers through every step of their long journey, delineated the particular tour they make, and shewed by what secret influence they are determined to revisit our planetary regions, after an absence of scores, or rather centuries of years.

* SENECA Natural. Quæst. lib. vii. Cap. xxvi.

To imagine that the appearing of a comet is ominous, and that it forebodes some approaching calamity to any part of the earth, is a superstitious conceit, without any foundation in reason ; and it seems to be condemned in Scripture. Jeremiah x. 2. “ Thus saith the Lord, learn not the way of the heathen, and be not dismayed at the signs of the heavens ; for the heathen are dismayed at them.”



OF THE MILKY WAY.

“ A broad and ample road, whose dust is gold
“ And pavement stars, as stars to thee appear,
“ Seen in the Galaxy, that milky way,
“ Which nightly, as a circling zone thou see’st
“ Powder’d with stars.”

MILTON.

WHEN we examine the sky at night we perceive a pale and irregular light over our heads. Numerous stars, the rays of which, by their confusion, form this luminous tract ; which is commonly called the galaxy or milky way. They are too far from us to be perceived separately by the naked eye ; and even between those which are visible through a glass there are spaces discoverable, which, to all appearance, are filled with an immense quantity of other stars, which even the telescope cannot make visible.

The stars which we see in the milky way appear to us no more than shining specks ; although they are much larger than the globe of the earth. Whatever instrument we make use of, they still appear as small as before. If an inhabitant of our globe could travel in the air, and could attain the height of 190 millions of miles,

the magnitude of those luminous bodies would not appear sensibly increased. However incredible this may seem, it is not a chimerical idea, but is a fact which has actually been proved ; for about the twenty first of December we are more than 190 millions of miles nearer the northern part of the sky than we shall be about the twenty first of June ; and, notwithstanding we do not perceive any difference of size in those stars. This milky way, so inconsiderable in comparison of the whole space of the heavens, is sufficient to prove the greatness of the supreme Being ; and every star discovered in it teaches us the wisdom and goodness of God.

What are those stars in comparison of the immense number of globes and worlds which roll in the firmament ! A late ingenious astronomer, by help of a telescope of remarkable power, has discovered beyond conjecture this account of the milky way, and says, “That even our sun, and in consequence our whole solar system, forms but a part of the radiant circle. Many small specks in the heavens, unseen by mortal eye, he discovers to consist of myriads of stars ; being, as he supposes, entire systems of themselves.” Here reason stops and is confounded : To admire and adore is all that remains for us to do.

PLURALITY OF WORLDS.

“ The stars, which grace the high expansion, bright
“ By their own beams and unprecarious light,
“ Though some near neighbors seem, and some display
“ United lustre in the milky way,
“ At a vast distance from each other lie
“ Sever’d by spacious voids of liquid sky.
“ All these illustrious worlds, and many more
“ Which by the tube astronomers explore,
“ And millions which the glass can ne’er descry
“ Lost in the wilds of vast immensity,
“ Are suns, are centres, whose superior sway
“ Planets of various magnitude obey.”

BLACKMORE.

IT is not through ignorance alone, but also through self love and pride, that we give the name of *WORLD* only to one of the least parts of the universe ; persuading ourselves that our globe alone is inhabited ; that the sun was made merely to communicate to us its light and heat, and that the moon and stars have no other destination than that of lighting our nights, and shewing the traveller his way. The contemplation of the fixed stars is sufficient to contradict this ridiculous opinion. It is probable, that those celestial bodies, are not luminous specks, but great suns. If their destination were only

to serve as nocturnal lights to us, they would be of no service the greatest part of the year. The frequent cloudy skies, and the nights that are light from other causes, would make them useless. Those stars also, which the naked eye cannot discover, from their great distance, would be absolutely of no use ; and the purpose ascribed to them would be better supplied by one single star nearer to us, than by so many millions at that distance. As the same reasoning may be applied to every use which the stars are of to us, either in navigation or any thing else, it must be allowed, that we could not possibly account for the design of those numerous suns, if no creatures except those of our own globe profited by their light and heat, or unless they themselves served as habitations for different beings. This conclusion will appear still more natural, if we reflect attentively on our solar system. We have already observed that the moon in some things resembles this earth. That there, as well as here, mountains and vallies are to be seen. Such affinities as these authorise us to admit others, and to suppose also in the moon, rivers, seas, minerals, plants, animals, and rational creatures. The analogy between the moon and the rest of the planets lead us to form the same conjectures of them. As the fixed stars shine by their own light, and not by reflecting the light of our sun,

we with reason conclude that they are each of them of the same nature with our central body : which being admitted, we naturally infer that they give light and life to other systems of planets, as our sun does to its circumfluent worlds.

Thus we behold round us an innumerable multitude of worlds, each of which has its peculiar laws, arrangement, productions, and inhabitants.

How numerous are the works of God ! How glorious the starry sky ! How great our Creator ! Millions of worlds declare his glory, and the intelligent beings which they contain acknowledge and adore their Maker. How forcibly does this incline us to join with the heavenly choir in singing his praise, that it may resound over all the universe ! How happy the prospect that opens to us of that future state, wherein we shall be acquainted with these worlds, and able to comprehend the wonders of them ! How great will be our astonishment in discovering objects quite new to us, or at least very imperfectly known ! In what splendor will the divine perfections appear, the power of which extends over a multitude of worlds, while some falsely imagine it reaches only to the little globe which we inhabit ! What endless subjects for glorifying the Creator and Ruler of all these worlds !

DISCOVERIES MADE BY THE MICROSCOPE.

—— “close to the eye

“Apply the sight invigorating lens

“And mark the sportful living myriads,

“Else unobserv'd in viewless littleness.”

—— “Even the blue down the purple plum furrounds,

“A living world, thy failing sight confounds,

—— “a peopled habitation shows,

“Where millions taste the bounty god bestows.”

BOYSE.

NATURE is in small objects what she is in great ones. There is no less order and harmony in the construction of the mite than in that of the elephant. The only difference is that the weakness of our sight prevents us from penetrating into the nature and organization of small bodies, which often escape our eyes, and which we can perceive only by the assistance of glasses. Microscopes have made us acquainted with a new world of vegetables and animals. They teach us that objects which the naked eye cannot discover, have extent, parts, and form. Let us mention some examples of it, to lead us to praise

God, whose glory manifests itself so wonderfully in small objects. Every grain of sand appears round when we examine it with our eyes only, but by the assistance of a glass we may observe that every grain is different both in size and shape. Some are perfectly round, others square, others conical, but mostly irregular. And what is still more astonishing is, that by means of a microscope, which makes objects appear many times larger than they are, we may discover, in the grains of sand, a new animal world : For it has been found, that their cavities contain insects. In cheese, there are little worms called mites, which to the naked eye appear mere dots, whilst, with a microscope, they are proved to be insects of a singular figure. They have not only eyes, mouth, and feet, but a transparent body furnished with long hair in the form of prickles.

As for the vegetable kingdom it is found in the mouldy substance which usually sticks to damp bodies. It presents a thick forest of trees and plants, where the branches, leaves, flowers, and fruit can be clearly distinguished. The flowers have long, white, transparent stalks. The bud, before it opens, is but a little green ball ; and it does not become white till it has blown. You would as little expect to find these

objects in mouldy substances, as that the meal which covers the wings of the butterfly should be a bunch of little feathers ; if the truth of it had not been proved by the microscope. But we have no occasion to carry our researches to remote objects. Let us limit them to what relates to ourselves. Examine with a microscope the surface of your skin, and you will find that it resembles the scaly skin of a fish. It has been computed that a grain of sand could cover 250 of these scales, and that one only of these scales covers 500 pores, and consequently that a space equal to a grain of sand contains 125,000 pores.

Thus we see how great our Creator is, even in things which ignorance and prejudice make us consider as trifles. What an immense number of creatures he has spread over the earth ! How many objects in nature are concealed from us ! We already know above thirty thousand plants, and of insects a vast number of species. But what is that in comparison of the whole ? If the bottom of the sea, and of rivers, could be open to our sight ; if we could transport ourselves to other planets ; how would our astonishment increase at the immense number of God's creatures ! How wonderfully we experience that he has displayed as much wisdom in the most

minute objects as in the greatest ! Even the smallest bodies are as complete and regular, as those prodigious ones, whose circumference is calculated by millions. The Creator provides with the same goodness for the wants of the insect which crawls in the dust, as for those of the whale which appears like an island in the midst of the waves. Let us imitate in this the example of the Deity. Let the least of creatures feel our benevolence, since our common Author vouchsafes to preserve their existence.

SEVERAL USES OF FIRE.

“That gracious Power who kindled up the Sun
“To give us light and heat from loftier spheres,
“Has favor’d us with *elemental fire*
“Subservient to our use and welfare too.”

FIRE is, in some degree, the universal instrument of all the arts and all the necessities of life. In order that man should make continual use of this element, the Creator has caused it to mix in the air, the earth, the water, and all natural substances.

How very useful is all the combustible matter which supplies us with fuel! Without a sufficient provision of it we should not only lose the greatest advantages, but we should be exposed to the greatest inconveniencies.

In winter were it not for the fire which lights us, a great part of our time would pass in the most uncomfortable darkness. Deprived of that artificial light, our most agreeable amusements, our pleasing studies, and necessary toils, would cease at sunset. We should be obliged to remain motionless, or else to wander in darkness,

with horror, in the midst of a thousand dangers. How dreary our state would be, if in the long winter evenings we could neither enjoy the pleasures of society, nor make use of the resources of reading, writing, and working ! Consider how unwholesome the greatest part of the food which the earth produces would be, and how little nourishment there would be in it, if by means of fire it were not dissolved, softened, and prepared to a certain degree.

And how should we be able to provide so many other necessities and conveniencies of life, if the workmen and artists did not procure them for us with the help of fire ? Without that element we should not be able to melt metals, to make them malleable, to refine them ; to change sand into glass ; or to give to lime the consistence of stone. Without fire nature and all its treasures would become useless, and would lose in our eyes most of their charms. But let us limit ourselves to the advantages which we derive from it during the months of winter. What comfort do we find in a room warmed by it, so as to guard us from the impression of the outward air ! Benumbed by the cold we should be disabled from labor and disinclined to exertion, at least exposed to a thousand disagreeable sensations, if the

fire did not convey to us a certain activity. How many old and sickly people would suffer doubly, were it not for its benign influence? What would become of the weak infant, if its delicate limbs were not strengthened by a gentle heat? Oh! unhappy people, who suffer all the rigor of the cold season, and are ready to sacrifice a portion of the bread which is left you, in order to get fuel to warm your trembling limbs. I pity you from the bottom of my heart. Your situation reminds me of a part of my happiness, to which I have hitherto given but little attention, and imposes on me more strongly the obligation of gratitude for the advantages which I derive from the heat of fire. It imposes on me also the duty of giving part of my abundance to relieve others from those evils, from which I myself am exempt. O my God, my Creator and Benefactor, deign to look upon me! See my heart expand in praises and thanksgivings. It is to thy fatherly care that I owe all the advantages, all the pleasures which fire enables me to enjoy.

MYSTERIES OF NATURE.

“ To man’s short reach of mind and scanty powers,
“ How much is dubious in the things he sees,
“ How much eludes his sight !”—

WHEN we attempt to investigate things, and to penetrate into the causes of effects daily under our observation, we are forced to acknowledge how limited our understandings are. A thousand things in nature lie beyond our reach, and elude our comprehension ; while those which we can explain, have still many properties for which we cannot account.

We hear the wind blow ; we experience its great, its different effects : but we know not exactly what produces it, what increases or what abates its violence.

From a small seed put into the ground, and which appears there to rot and be wholly destroyed, we behold grass spring up, stalks and ears of corn ; but we are ignorant how that is done. We still less can comprehend how from a little fruit stone there grows a plant, and then a great tree, which is covered with leaves and blossoms

to please us, which a fruit for our nourishment or wood for our convenience.

All the food which we take, and which is so various in its kinds and so different in its nature, is transformed within us by an incomprehensible process, mixes with our blood and flesh, and, by means we cannot explain, becomes a part of our bodily frame and essential to its growth and health and existence.

We find that the eye sees the images painted on the retina, and that the ear has a perception of the vibration of the air ; but how it is effected, and indeed for all the perception through the medium of the senses we know not how to account.

We are conscious of the existence of a soul in our body ; but who can explain the union of soul and body, and their mutual influence on each other ?

The effects of fire and air are continually before us : but what is their nature, what their integral parts, and how do all their different effects take place ?

The wonderful properties of the loadstone, the singular effects of electricity, the theory of the thunder and lightning, the occasion of the aurora borealis, and in a word many of the phe-

nomena, are beyond the sphere of our comprehension.

The mysteries of nature afford us lessons of wisdom. They check presumption, inspire diffidence and modesty.

Concerning those things which are hidden in obscurity and removed far from us, so that we cannot discover them at all, or can apprehend them only in a confused or superficial way ; and concerning those that we have neither means to investigate nor faculties to comprehend ; curiosity should be suppressed, and we should consent to be ignorant.

Let us learn to suit our desires of knowledge to our condition, and neither seek what we have not power to attain, nor fancy ourselves knowing where we are ignorant, nor be contentious and positive about things which we do not understand.

PART II.

ON THE

SEASONS OF THE YEAR.

MEDITATION ON THE FIRST DAY OF THE YEAR.

—— “ See the new born year, all gaily drest
“ In radiant robes of novelty and hope,
“ Has seiz'd, with aspect bland, the car of time.”

I REPRESENT to myself this first day of the year as if it were the first day of my life ; and, from the goodness of God, I presume to hope for blessings this year equal to those that have been granted me on former ones. What may I not hope for from my heavenly Father, who from the first moment of my existence provided for me with so much tenderness and goodness ? In my parents he gave me friends, who, from my very birth, supported and brought me up, and whose disinterested affection protected me in the weak and helpless state of infancy. Without

such care how could I have been preserved to enjoy the many blessings which I now possess ?

I enter with the present day into a new period of life, not so much unprovided for, nor so helpless, as when I first came into the world ; but with equal occasion for assistance in many respects as I then experienced. I require friends to shed sweets upon my life, to support my spirits when oppressed with grief, and to warn me of dangers into which I might otherwise fall. And will not my heavenly Father grant me this best of blessings ?

With this first day of the year my lot is as it were settled over again. The Lord, who gave me being, takes in at one glance (which nothing can deceive) each week, each day, each instant of this year. All indeed that relates to me is hidden from *me* ; but all things are visible to God, and all are settled according to his decrees, which are full of wisdom and goodness. If in the course of the year I experience any misfortune, which I could not foresee ; if any unforeseen happiness fall to my lot ; if I have any loss to bear, which I could not expect ; all will work together for my good.

Full of this conviction I begin the new year. Let what will happen I shall be more and more

confirmed in the persuasion that God will be my preserver still, as he has all along been. If I find myself exposed to poverty and distress, I will remember the days of my infancy, that more critical state, in which he protected me. If I meet with ingratitude from a friend, even *that* ought not to make me unhappy. God can raise me up other friends, in whose tenderness I may enjoy delight and comfort. If days full of dangers, and persecution be my lot, even these ought not to terrify me. I should put my trust in that power which protected my childhood, when it was exposed to a thousand dangers. What then can prevent my beginning this year with a tranquil mind? I look forward without anxiety, and leave my fate to the guidance of Providence.

EQUAL DISTRIBUTION OF THE SEASONS.

- “ There is, who deems all climes, all seasons fair ;
“ There is, who knows no restless passion's strife ;
“ Contentment, smiling at each idle care ;
“ Contentment, thankful for the gift of life !”

SCOTT OF AMWELL.

WHILE the sun is far from us, and the severe cold binds and shuts up our earth, there are some countries where the inhabitants enjoy all the beauties of Spring ; others, where they are gathering rich harvests ; and others, where Autumn fills their granaries with fruit. Thus has the divine wisdom regulated the change of seasons, and distributed the same favors to all his creatures at different times. His impartial love extends to every being which he has made. It is sufficient that they are in want of his blessings ; he takes pleasure in granting them. His beneficent views extend over the deserts of Arabia with as much goodness as over the smiling countries of Europe ; and his government is the same from pole to pole. But, since God distributes the blessings of this life with an equal hand, why are some countries deprived of the pleasures of Spring, while others enjoy them in such abun-

dance ? Why are the rays of the sun so partially spread that in some climates there is darkness, and in others light, for whole months together ? Why are not the frozen countries near the pole as beautiful and fertile as our plains and valleys ?—What art thou, O man, who darest to ask such questions ? What right hast thou to demand an account of the infinitely wise Being of the manner in which he rules the world ? Vain mortal, learn to be humble, and to acknowledge traces of a sovereign wisdom in the very things wherein thy weak understanding imagines there are defects. God has given to each country what was necessary to the life, support, and content of his creatures. All is planned according to the climate which they inhabit ; and Providence has, every where, wisely provided for their preservation and support.

Lord ! The earth is full of thy mercies. Thy goodness is spread over all the heavens, and extends to the very clouds. What country is there that has not experienced its effects ! What province, throughout thy immense empire, is there, in which the traces of thy beneficence may not be seen ! Great and admirable are the order and beauty of the visible creation !—O Lord how manifold are thy works ! in wisdom hast thou made them all !

CHANGES OF THE SEASONS.

“ View how in course the constant Seasons rise,
“ Deform the earth or beautify the skies :
“ First, *SPRING* advancing, with her flowery train ;
“ Next, *SUMMER*’s hand that spreads the sylvan scene ;
“ Then *AUTUMN*, with her yellow harvests crown’d ;
“ And trembling *WINTER*, close the annual round.”

BOYSE.

IN the warmest climates, as well as in the coldest there are but two seasons in the year really different. In the coldest, Summer lasts about four months ; and the Winter about eight. Spring and Autumn are scarcely perceptible there ; because in a few days heat succeeds cold ; and, on the contrary, heat is soon followed by severe cold. The hottest countries have a dry and burning season for seven or eight months. Afterwards comes rain, which lasts four or five months ; and this rainy season makes the difference between Summer and Winter. It is only in temperate climates that there are four seasons in the year really distinct. The Summer heats gradually decrease, so that the autumnal fruits have time to ripen by degrees, without being

hurt by the cold of Winter. In the same manner in Spring the plants have time to shoot, and grow insensibly, without being destroyed by late frosts, or too much hastened by early heats. In Europe these four seasons are most perceptible ; and particularly in Italy, and in the south of France. By degrees, as we advance towards the north, or towards the south, the Spring and Autumn are less marked. From the middle of May to the end of June it rains less frequently ; after which the violent rains return, and continue to the end of July. In February and April the weather is very uncertain. If the melted snow and rains remained on the ground, the water would annually rise to the height of a foot and three quarters in most countries.

This change of seasons deserves our admiration. It cannot be attributed to chance ; for in fortuitous events there can be neither order nor constancy. Now in every country throughout the world the seasons succeed each other with the same regularity as the nights and days, and change the appearance of the earth precisely at the appointed time. We see it successively adorned, sometimes with herbs and leaves, sometimes with flowers, sometimes with fruit. Afterwards it is stripped of all its ornaments, till

Spring returns, and in some degree revives it. Spring, Summer, and Autumn provide food for men and animals, in giving them abundance of fruits ; and though nature appears dead in Winter, yet that season is not without its blessings ; for it moistens and fertilizes the earth, and by that preparation makes it fit to produce its plants and fruits in due season.



COMPLAINTS OF MANKIND, RELATIVE TO CERTAIN INCON-
VENIENCES IN THE LAWS OF NATURE.

“ Presumptuous man ! the reason wouldst thou find

“ Why form’d so weak, so little, and so blind !

“ First, if thou canst, the harder reason guess,

“ Why form’d no weaker, blinder, and no less !

“ Respecting man, whatever wrong we call,

“ May, must be right as relative to all.”

POPE.

“ **W**HY is the human body, from its constitution, liable to so many infirmities and accidents ?”
Let him who asks this question, say, whether it be possible to imagine a body which unites more advantages than that which he has received from his Creator ? If one of our fellow creatures be deformed, another lame, a third deaf or dumb ; is it a reason for us to murmur against God ? Are those defects so common that they should induce us to complain ? It is of use to men, in general, that they may not want examples of the defects to which the human body is liable. For, when a person, perfect and well made, compares himself with one that is crooked and deformed, he is sensible of all the advantages of well formed limbs ; he learns to set a proper value upon a

gift on which he had hardly ever reflected till then, and to take more care of its preservation. How valuable is each eye, each ear, each organ of sense, each joint, each limb, if we only observe the condition of the few people who are deprived of them ! Would any of us part with a limb in exchange for the greatest treasure ? Are not our bodies more beautiful and regular than the finest building, or the most curious machine ? And though the latter are very inferior to it, we are far from attributing the assemblage of their parts to chance.

“ Why are some countries of the earth so different from others ; sometimes cold, sometimes damp, sometimes low, and sometimes high ? ” But, O man, it is owing to this difference that the countries of the earth produce that variety of exhalations and winds, which occasion that mixed air, wherein experience tells us, that men and animals live healthy and content in most places, and wherein plants also grow and increase.

“ It is, however allowed that the variations of the weather are not beneficial to all men, and to all countries.” But, has not the preceding weather influenced the following, as the climate of one country often influences another. Are we capable of judging of the whole ; Must a million of farmers sigh in vain for rain, because dry

weather would suit the private convenience of one family? A certain temperature of the air may occasion, here and there, a transient barrenness; but, can it be called an evil, if it were necessary in order to hinder the air from corrupting? Ought the east wind, favorable to a whole country, to cease to blow, because its violence may cause some shipwrecks, or be hurtful to some consumptive people? Is it reasonable, when we cannot take in the whole, to find fault with part?

“ One part, one little part, we dimly scan,
“ Through the false medium of life’s feverish dream ;
“ Yet dare arraign the whole stupendous plan,
“ If but that little part incongruous seem !”

“ Why are there so many hurtful animals ?”
Would it then be better to have no beasts of prey, small or large, upon the earth? They put a stop to the number of animals, that would otherwise overpower us! and, it is because some animals serve for food to beasts of prey, that the numbers of living creatures increase every year.

“ Why has the Creator regulated the course of nature by such invariable laws? It is in consequence of this regulation that man’s experience and labor enable him to make use of his understanding and powers, so as to be, in some measure, master of his own welfare. Would we wish

to inhabit a world, where we should have no occasion to do any thing ; where we could not in any way contribute to the multiplication of our own pleasures ; where there should be no rule, no fundamental law ; where, in short, the best, the bad, and the worst being equally unknown, nothing could make us attend to the laws of nature ?

Doubtless, there will ever be a number of things in nature, the purposes of which, or their relation with the whole, must ever be concealed from us. But, on all occasions, let us rest on this principle, that God does every thing for wise and beneficent purposes. And, when these enigmas, these inexplicable things, present themselves, let us say with the apostle, “ O ! the depth of the riches, both of the wisdom and knowledge of God ! How unsearchable are his judgments, and his ways past finding out ! ”

“ Know then whate’er in Nature’s ample field
“ The scanty ken of thy revolving eye
“ Hath mark’d as evil, in the general plan
“ Is just, is beauteous. The conjoining parts,
“ Though each when separate, like a single limb
“ In some proportion’d shape, appears deform’d,
“ As view’d apart ; yet when exactly wrought
“ In the full work, an heightened grace assumes,
“ And aids the perfect symmetry of all.”

OGILVIE.

SPRING.

HOPE OF SPRING.

- " Stern WINTER hence with all his train removes,
" And cheerful skies and limpid streams are seen ;
" Thick sprouting foliage decorates the groves ;
" Reviving herbage clothes the fields with green.
" Yet lovelier scenes the approaching months prepare ;
" Kind SPRING's full bounty soon will be display'd ;
" The smile of beauty every vale shall wear,
" The voice of song enliven every shade."

SCOTT, OF AMWELL.

EVERY day brings us nearer to the pleasures of Spring, and gives us hope of the time approaching, in which we may breathe more freely, and contemplate nature with more satisfaction and joy. This sweet expectation is almost the only one which does not deceive us, being founded on the invariable laws of nature. The charms of this hope are felt in every heart without distinction ; for the beggar, as well as the monarch, may behold the Spring approach with pure joy, and promise himself in it the enjoyment of pleasures. This hope is not attended with impa-

tience, because it extends very far, and takes in a multitude of objects.

The coming of Spring procures us a thousand new pleasures. The beauty and perfume of the flowers ; the singing of the birds ; the verdant foliage, and the springing grain.

Most earthly hopes are attended with anxieties : But that of Spring is as satisfactory as it is innocent and pure ; for nature seldom deceives us. On the contrary, her presents generally surpass our expectations, in number, magnificence and quantity. Encouraged by the hope of Spring, we have patiently borne the inconvenience of cold and bad weather ; many are now on the point of seeing that hope abundantly realized. A few more disagreeable days and the sky will become serene, the air milder ; the sun will revive nature, and the earth will reassume its ornaments.

O most merciful God ! I return thee thanks for those sources of joy and comfort which thou hast opened to us, to soften the ills of life. I bless thee for every ray of hope which has animated my soul, for every blessing already received, and for all those reserved for me hereafter.

REFLECTIONS ON THE SPRING.

- “ Lo SPRING returns on mildest breezes borne!
“ Nature revives : the fields no longer mourn.
“ A verdant carpet o’er the plain she spreads,
“ And fragrant flowrets rise where e’er she treads.
“ The feather’d songsters warble through the grove,
“ And give the genial season all to love.”
-

THAT Season of the Year, which we call *the Spring*, has charms which are felt in every heart ; all mankind behold its approach with joy, and promise themselves much pleasure from it.

It was but lately that the whole surface of the earth was barren and desolate. The vallies, the prospect of which now gives us so much pleasure, were buried in snow ; the rivers and streams, which now pleasingly murmur as they flow, were stopped in their courses ; the trees discovered nothing but leafless branches ; the birds, who now fill the air with their music, were mute ; and, as far as the eye could stretch, all was melancholy silence. But, in this beautiful season, nature awakes and all her vital energies revive. The mighty pulse of life begins again to beat ; the earth, penetrated by the quickening

warmth of the sun, re-assumes her ornaments ; the sky becomes serene, and the air more mild ; the whole face of nature is renewed and embellished, and whenever we turn our eye, it is captivated and sweetly delighted. The seasons, as they change, bring with them an agreeable variety, and each of them is distinguished by peculiar pleasures ; but, of all others, this, the youth of the just ripening year, most universally delights us : all is beauty to the eye, music to the ear, and transport to the heart.

That we may be the more strongly impressed with a reverential admiration of that God whose power and goodness are so pleasingly manifested at this season, let us consider some of the various beauties and blessings of the Spring.

He who has any taste for the beauties of nature can never want pure and sincere pleasures in this season. The clear unclouded sky is his canopy, and the earth, enamelled with flowers, is his carpet ; the cattle express, in the best manner they can, the spirit and the joy with which they are animated ; the fish, recovering their former vivacity, rise to the surface of the water, and agreeably amuse our sight ; whilst the air resounds with the songs of birds, whose concerts are hymns of joy to their Creator, expressive of their happiness

and love. Such is the general bliss which the *Spring* produces ; and we every where trace its enlivening powers and happy effects in an universal serenity, liveliness and joy.

Is it possible that, at the sight and enjoyment of such objects, the heart should not beat high with grateful transport ? Or can the mind have a more pleasing employment than that of contemplating and praising the greatness of the Creator's wisdom, and the beauty of his works ? Never ought we to breathe the refreshing air of this season, without being awed into reverence, and warmed with devotion ; without recollecting that it is God who clothes the woods and meadows with their beautiful verdure ; gives life and happiness to the various tribes of creatures who mingle so much magnificence and beauty with the scenery ; and that it is through Him we enjoy the sweets and the comforts of returning Spring.

There is not a field which does not now present a beautiful landscape to the eye. We see on all sides a multitude of flowers in the bud ; their sweets as it were locked up, and their charms concealed ; but the all enlivening heat of the sun will soon open them, cause them to bloom and blossom, and equally delight and surprise us

with the variety of their beauties: for how much soever we may admire the prodigious *number* of flowers, their *variety* is, perhaps, more astonishing. Certainly nothing but a Divine Power could cause such numbers to grow; and this power must be equalled by wisdom to produce such endless variety. Each has something peculiar to itself; and it is an act of divine goodness thus to have varied them, and added that charm to their other perfections. If they had all been perfectly alike, the sameness would have disgusted us; and, if Summer produced no flowers but such as the Spring affords, we should soon be tired of cultivating them. With what wisdom has the Creator planned his works! all wonderfully various, all completely perfect! in all the agreeable and the useful are united.

We may also find many reasons to admire the wisdom and goodness of the Creator in the *succession* of flowers. These beautiful children of nature appear not all at once, but in a regular succession; the time is fixed in which one is to unfold its leaves, and another to blossom, and a third to fade. Each month displays ornaments peculiar to itself. And it is for very kind purposes that, on the return of Spring, each plant and flower should open its leaves, and blossom at the time, and in the order appointed: The Creator thus favors us with a regular train of

benefits, and not only multiplies, but renders them perpetual ; for, although there are always some flowers fading, there are new ones continually springing up, to adorn the face of the earth, and enliven our journey through life.

Let it also be remembered that, to the pleasure which we receive from the wonderful variety, and regular succession of flowers, God has also been pleased graciously to add the charm of sweet perfume, and to give as much variety to their smell as to their forms ; and though we cannot exactly tell in what the difference consists, yet we perceive it very sensibly, in going from flower to flower : and it is remarkable that this smell is not so strong as to affect the head disagreeably, or so weak as to lose its pleasing effect. Thus all the sensations that flowers can give contribute to our happiness ; they all combine to fill our minds with the purest delights, and to lead our hearts to God.

The leaves of trees and plants also, common as they are, and of how little value soever they may seem, form, at this season, one of the beauties of nature ; our impatience to see them, and our joy when they appear, prove sufficiently that they are a great ornament to our gardens, fields and woods. This, however, is the least of the advantages which arise from leaves.

The nourishment of plants and trees proceeds, in a great measure, from their leaves, which imbibe moisture, and receive those refreshing dews, that falling upon the upper leaves, water those beneath them, and thus none of the nourishing juice is lost. Leaves also contribute to the preservation of those buds of trees, which are to shoot in the following year, for the eye of the bud is already under the leaf, and is guarded and preserved by it ; as we see many trees wither and die, when their leaves are gathered. This should teach us that the least of God's works has been planned with wisdom ; that there is not a single leaf which is a mere ornament, but that they all contribute to the fruitfulness of the earth, and the support of its inhabitants.

Another pleasure attending the return of Spring is that " the time of the singing of birds is come : " the soft air of the Spring awakens the winged songsters, the variety of whose music charms the ear, and fills the soul with a sweet and a serene pleasure. These splendid inhabitants of the air possess all those qualities that can soothe the heart, and please the fancy ; the brightest colors ; the roundest forms ; the most lively manners ; and the sweetest music : They

enliven our walks ; and, throughout all the retreats of retirement, fill our hearts with gaiety, and give harmony to meditation.

Another advantage arising from the Spring is, that it furnishes us with an opportunity of observing the industry and labors of the *bees*. Bees have been the theme of the poet, the legislator, and philosopher ; they have been considered as emblems both of public and private virtue ; of subordination, ingenuity, and of a diligence which is not only uncommon, but, perhaps, unequalled. They appear as soon as winter is past, and, even before the juices of those flowers which begin to blossom have been sufficiently ripened to furnish honey, gather some little food ; but their cares and activity increase, as the season advances ; they do all they can, and despise not small gains, if they can increase their stores a little. They prudently lay up provision for the winter, knowing that they can gather no more when the season of flowers is past ; and having then no resources for subsistence but such as they have already collected.

But it is not sufficient that we admire the activity of these little creatures ; it ought to inspire us with emulation, and serve us as a model. There are, indeed, no insects around us which can

afford us more pleasing, or more useful, lessons. Insignificant as they may seem, we may learn from them virtues on which the happiness of our lives greatly depends. A hive is a school to which many of the human race ought to be sent. All the virtues are conspicuous in the bees; they are never idle, and all labor for the public good; they live in union and harmony; are strictly united and perfectly happy; they enrich themselves without robbing others; and are all obedient and submissive to the laws of the community. If we compare human societies with this, we must blush and be ashamed; particularly if we recollect that we have much stronger reasons for the performance of our duties than these insects; as the fruit of our labors extends not to days and years only, but to eternity.

This season of the year seems peculiarly formed for piety. That cheerfulness of heart which springs up in us from a survey of the beauties of nature is an admirable preparation for gratitude; and it seems reasonable to suppose that each field should be to us a temple, where we should offer up to our Creator praise and thanksgiving; where each thought and each action should tend to his glory, and thus convert a common walk into a morning or an evening sacrifice. But we daily see the ingratitude of man to his heavenly Benefactor. Yet how is it possible for

us, at this season, to forget our Creator, who shews himself to us in each blade of grass and each flower of the field ; who addresses himself, in the mild and persuasive language of renovated nature, to our senses, our reason, and all our faculties ? Let us listen to her language and we shall never be insensible or ungrateful. When we find ourselves pleased with the beauties of the creation, let us consider to whom we are indebted for all this entertainment ; who it is that openeth his hand and filleth the world with good. We shall never truly enjoy this season, until, by fixing our attention on the works of the Creator, we learn to trace out his power and goodness ; and to be careful not to make a bad use of the blessings of Spring, by indulging pleasures which lead to folly and sin.

Yet Spring, though the season of hope, supplies us also with images of frailty and death, which are connected with almost every beauty of nature. Spring is the season in which plants receive a new life ; and in which most of them perish. We see the trees full of blossoms, and abounding with beauties : but all these showy ornaments will die in the same season which gave them birth. Let every one, in these blossoms, behold an image of himself ; and recollect that of those days of youth, which we call the Spring season of life, nothing but a melancholy

remembrance remains, unless he has made a good use of them.

But, although these thoughts ought to make us serious, we should notwithstanding enjoy both the Spring of nature and the pleasures of life, as they are bestowed upon us by our gracious Creator: mixing, at the same time, with these enjoyments such reflections as arise from the nature of spring and of life. The thought of death is very consistent with every innocent pleasure; far from causing melancholy, it should teach us to rejoice in the Lord; should guard us against a bad use of earthly pleasures, and inspire us with a desire of uninterrupted and everlasting happiness.

Lastly, let us recollect that, as the flowers which we so much admire in the Spring were once coarse and ungraceful roots; but, in their appointed time, bloom, delight our senses, and adorn the earth with an infinite variety of charms; this affords us a beautiful representation of the state of our reanimated bodies; which, although, whilst in the grave, an object of horror, will experience at the resurrection a most astonishing change; that which “was sown in dishonor shall be raised in glory”; “the corruptible will put on incorruption; the mortal be clothed with immortality;” and shine as the brightness of the firmament in the new Heavens and the new Earth, where an unfading Spring flourishes, and will continue to flourish through the ages of eternity.

USE OF VEGETABLES.

"Your contemplation farther yet pursue ;
"The wondrous world of vegetables view.
"Here various trees their various fruits produce,
"Some for delightful taste, and some for use :
"There sprouting plants enrich the plain and wood,
"For physic some, and some design'd for food :
"While fragrant flowers with different colors dy'd
"On smiling meads unfold their gaudy pride.

BLACKMORE.

WHEN I consider the great number and variety of vegetables, I discover in this circumstance, as in every thing else, the beneficent views of my Creator. What indeed could he propose by covering the earth with so many different herbs, plants, and fruits, but the advantage and happiness of his creatures ? Do not *plants* and *fruit* furnish us every day with the most wholesome nourishing food ? Do we not mostly owe our cloathes, houses, and furniture, to the vegetable world ? There is no part of plants but has its utility. The *roots* furnish medicaments : They serve for food and fuel ; to make pitch, dyes, and all sorts of utensils. Of *wood* is made charcoal, buildings, fires, medicines, paper, dyes, and a vast number of instruments. Even the *bark* has its utility in medicine, in tanning, &c. The

ashes serve to manure and improve the lands, to bleach cloth, to make saltpetre, potash, &c. *Rosin* is useful to painters. Pitch and tar are made of it. *Turpentine* is used in medicine; hard rosin to varnish, to folder, and to rub the bowstrings of musical instruments, in order to make them more sonorous. *Flowers* please and delight both by their color and smell. They are useful in medicine, and especially in furnishing bees with wax and honey. The *fruits*, which ripen by degrees, serve for our food, and are eaten either raw, baked, dried, or preserved. But vegetables are not for the use of man alone. They are of still greater use to animals, most of which have no other food. The reason that there are so many fields, and so great a variety of herbs and plants, is that all the different animals may find their proper food.

O heavenly Father ! who can reckon all the blessings which the vegetable world affords ? At least it is manifest that all the arrangements which thou hast made, in this respect, tend to the utility of all thy creatures. Thou hast provided for the wants of every individual. Thou hast assigned to each the plant properest for its food and preservation. There is not a plant upon earth that has not its purpose and use. What sentiments, therefore, of gratitude and veneration ought we not to feel for thy beneficence.

ON THE BLOSSOMS OF TREES.

Observe the trees their tender buds disclose,
How with young bloom the early orchard glows ;
There ripening fruits in embryo small appear,
The grateful prospect of a plenteous year.

AT the time when our gardens and fields are adorned with all the ornaments of Spring, all the region appears with equal pomp, and every where presents the most cheerful prospect. The power of the first word pronounced by the Creator when he formed the world, produced all these magnificent effects. The Creator and Ruler of the world, has in a few days renewed, and in a manner created the earth again, for the use and pleasure of his intelligent creatures. Come, O man ! come and try what thy wisdom and power can do. Art thou able to make a single tree blossom, to call from the earth the smallest blade of grass, to order a single tulip to appear in all its beauty ? Draw near, ye learned artists, and skilful painters, and contemplate these flowers, examine these master pieces with the most scrupulous attention ! Is any thing

wanting to their perfection? Do you find any fault in the mixing of the colors, in their form, or proportion? Could your pencil express the dazzling red of the peach bloom? Could you imitate the fine enamel, the uniformity and simplicity with which a cherry tree in blossom is adorned? But why do I say, imitate? Are you even capable of feeling all the magnificence of renewed nature, or of forming a just idea of inimitable art? If there were no stronger proofs on earth of the power and wisdom of God, the flowers of Spring alone would be sufficient to convince us of it. His power evidently appears throughout the whole. Each tree, herb, and flower proclaims his goodness and wisdom, which are over all the earth.

We remark an infinite variety in the blossoms of trees. All are beautiful; but their beauties are different. One surpasses another; but there is none which has not something pleasing peculiar to itself. However great the Creator is in dispensing his gifts, he still reserves to himself the liberty of bestowing more on some than others. But this difference is only in respect to accessory qualities. Such a tree, for example, has blossoms of a dazzling white; another has red

stripes and shades, which the first wants : some have, (added to the beauty of their form and color) an exquisite perfume. But all these differences are only accidental, and do not in the least affect their fertility or their usefulness. Hence we should learn a lesson of contentment. If we have not the same advantages which others possess ; if we are not as rich or as beautiful, we should not repine ; we may still be as virtuous, and as happy.

Let our chief study be, to act in such a manner, that when the beauty and charms of the body are no more, we may supply their place with abundant fruits of virtue and piety : remembering that a blighted Spring makes a barren year ; and that, however beautiful and gay its flowers may be, they are only intended by nature to prepare for the fruits of autumn.

REFLECTIONS ON A FLOWER GARDEN.

—————“ arrayed
“ In all the colors of the flushing year,
“ The garden glows, and fills the liberal air
“ With lavish fragrance.”

THOMPSON.

COME and behold the flower garden, and reflect on the number of different beauties assembled together in this little space. The art and industry of man have made it a charming scene of the finest flowers. But what would it have been without care and culture? A wild desert, full of thistles and thorns. Such would youth be, if they were neglected to be formed or properly educated. But when young people early receive useful instructions, and are under wise direction, they are like lovely blossoms, which delight with their beauty, and will soon produce fruit beneficial to society.

Behold the night violet, or the julian flower, which, towards evening scents our gardens with its perfume, in which it is superior to all others. It is little and of a grey color, tinged with green, so that it can scarcely be distinguished from the leaves. Modest, without shew or pretensions, it perfumes the whole garden. It is like a person who has much genius, and whom nature has compensated for the want of beauty by more

agreeable and useful endowments. The beneficent man often does good in secret and in obscurity, and sheds around him the perfume of good works ; and, when we wish to be acquainted with this most estimable of characters, we find that there is nothing ostentatious either in his person, condition, or rank.

In the carnation beauty and perfume are both united, and it is undoubtedly the most perfect of all flowers. It almost equals the tulip in its colors, and it surpasses it in the multitude of its leaves and the elegance of its form. This flower is the emblem of an accomplished person, who knows how to conciliate the love and respect of his fellow creatures.

Let us now observe the rose. Its color, form, fragrance, every thing in this flower charms us. But it appears to be the most transient and frail of any, and soon loses the beauty that distinguished it from so many flowers. This is an useful lesson for those who are very handsome, and it ought to teach them not to be vain. And as its odors remain when the leaves are withered, it suggests this pleasing moral, that there are charms which give even to beauty its value while it lasted, and more than compensate its loss.

In general, it is a melancholy sight to see, in this fine season, the ground already strewed with so many faded and dead flowers. We ought not, however to complain that Providence does

not give more stability to them. The world is a great stage, where we are not to see always the same actors. It is right that those who have finished their parts should retire, and make room for others. This is what the variety of God's works requires ; a variety which constitutes part of their perfection. We are also sensible to the charms of novelty ; it is therefore necessary that the first objects should disappear. If flowers preserved their blossoms the whole year, they would not please us as much as they do by only lasting a few months. Their absence makes us wish for their return. If they were continually before us we should soon be satiated. When we have seen an object in all its different points of view, we have in some measure exhausted its beauty, we become indifferent to it, and we aspire after new pleasures. The variation and continual succession of earthly blessings are therefore a mean which Providence makes use of to render our lives constantly agreeable.

Such is worldly happiness. All is vanity. " All flesh is as grass, and all the glory of man as the flower of grass. The grass withereth, and the flower thereof falleth away." The lilies and roses in a beautiful face fade as well as the flowers of the garden, and death leaves no traces of them. Let us then be wise enough to seek our peace and happiness in constant and durable blessings. Wisdom and virtue never fade. They are inexhaustible sources of endless joy.

*THE BEAUTY AND UTILITY OF THE MEADOWS
AND FIELDS.*

“ As o’er the varied meads I stray
“ Or trace through winding vales my way,
“ While opening flowers their sweets exhale
“ And odors breathe in every gale,
“ My soul responsive hails the scene,
“ Attun’d to joy and peace within.
“ But, musing on the liberal hand
“ That scatters blessings o’er the land,
“ That gives for man with power divine
“ The earth to teem, the sun to shine,
“ My grateful heart with rapture burns
“ And pleasure to devotion turns.”

WHATEVER charms the flowers cultivated in our gardens may have, those in the fields and meadows are still more agreeable. There is beauty in the former, but in the latter beauty and utility are united. Mere useless beauty pleases for a moment only. Is it not true that, in those long gravel walks, so even and neat, those arbors and summer houses, those parterres with pretty borders, those walls, those inclosures, we feel confined, and as it were oppressed? All those places, where the view is confined, seem to set bounds to our liberty. We wish to fly away to

the fields and meadows. We seem, in some degree, to be more independent, and more at ease, in proportion as our walk enlarges and lengthens before us. In the country, nature, fruitful and beautiful, every moment varies its appearance; whereas, in our ornamental gardens, we continually behold the same objects. Even their order and regularity prevent us from being long pleased with them. They have nothing new to offer us, and we grow tired of them. The eye, on the contrary, wanders with pleasure over objects continually diversified, and extending as far as the sight can reach. It was in order to give us this enjoyment that, in most places, the ground was formed smooth and even; but that we might also have pleasing distant prospects, our horizon is surrounded with rising hills. Nature has done still more: It has spared us the trouble of cultivating those flowery meads, or of watering them. An innumerable multitude of seeds is sown in them, which produce a verdure scarcely ever interrupted, or which is at least easily renewed. This prodigious variety of plants with which a field is covered is not for the sight only: they have each a seed, a blossom, qualities, and beauties, peculiar to them-

selves. It is true that the same species of herbs is prodigiously multiplied in each field ; but perhaps we do not make two steps without treading on an hundred different sorts, each of which has its peculiar use. This is one of the first reflections which we ought to make at the sight of a field. To the pleasure which it affords us our beneficent Creator added considerable advantages. The fields produce plants for our food, and a wonderful number of simples which serve for medicine. But the greatest use of the fields to us is the feeding, without expence, of those animals with which we can the least dispense. The ox, as well that whose flesh we eat, as that whose labor helps to plough our ground, requires no food but grass. The horse, whose services are innumerable, demands no other recompense for his toil than the free use of the field, or a sufficient quantity of hay. The cow, whose milk is one of the great supports of our life, asks nothing more. The field is the most complete inheritance. It is even preferable to meadows, as its produce is certain, and requires neither sowing nor labor. It only costs the slight trouble of gathering what it yields. Its productions are not casual, for it seldom happens that fields are destroyed by drought or inundations. But it is

melancholy that men, who are generally so inattentive, so insensible to the blessings of God, should be so in this respect also. We look upon grass with contempt or indifference, perhaps, because it grows under our feet, and has not been made the object of our care and culture. But whatever may be the cause of our indifference, it is certainly quite inexcusable. Would to God that our hearts were grateful whenever we walk in our fields and vallies ! that at the sight of our meadows enamelled with flowers we were sensibly touched with the goodness of the Creator, who, with a bountiful hand, pours out abundance ! There is not a corner of the earth where we may not discover traces of his good providence ! Every country, every soil, the good and the bad, all equally proclaim the Preserver of the universe.

CONTEMPLATIONS ON A MEADOW.

“ Nor is the mead unworthy of thy foot,
“ Full of fresh verdure and unnumber'd flowers,
“ The negligence of Nature, wide and wild ;
“ Where, undisguis'd by mimic art, she spreads
“ Unbounded beauty to the roving eye.”

THOMPSON.

DARK and majestic woods, where the pine raises its stately head, where the tufted oaks spread their shade ; ye rivers which roll your silver waves through the grey mountains, it is not you I now mean to praise : it is the verdure and the enamel of the fields which are now the objects of my contemplation. How many beauties present themselves to the sight, and how varied are they ! Millions of vegetables, millions of living creatures ! Some flying from flower to flower, whilst others creep and crawl in the dark labyrinths of the verdant grass. All these insects, so infinitely varied in form and beauty, find food and happiness here. All inhabit this earth with us ; and, however contemptible they may appear in our eyes, are perfect each in its kind. How soft the murmurs of that limpid

stream, which flows amongst the water cresses, and along the banks of clover, whose purple flowers are nourished by its little waves. Its sides are covered with thick grass intermixed with flowers, which, bending over the water, trace their image in it. Behold that forest of waving herbs. What a mild lustre the sun casts on those different shades of green. Those delicate plants, interwoven with the grass, mix their tender foliage; or else proudly raise their heads above their companions, and display flowers without perfume; whilst the humble violet grows on barren hills, exhaling its sweets around. Thus one often sees the useful virtuous man in poverty, whilst the rich and great are clothed in sumptuous habits, wasting in idleness the blessings of the earth.

Winged insects pursue each other in the grass. Sometimes I lose sight of them in the verdure, and then again I see a swarm of them flying in the air, and sporting in the rays of the sun. What other buzzing is this I hear? Why do those flowers so bend their heads? It is a swarm of young bees. They have lightly flown from their distant home, and dispersed over the gardens and fields. They are now gathering sweet nectar from the flowers, in order to carry it to their

cells. There is not an idle one amongst them. They fly from flower to flower ; and, in seeking their stores, they conceal their velvet heads in the cup of the flower, or else with labor penetrate into those that are not yet unfolded, and which afterwards incloses the bee. There, on that high clover, is perched a butterfly. He shakes his gaudy wings, he settles the shining feathers which adorn his head, and seems proud of his charms. Beautiful butterfly ! make the flower bend, which serves thee for a throne, and contemplate thy rich dress in the mirror of the water. Then wilt thou resemble a young beauty, admiring herself in the glass which reflects her charms. Her clothes are less beautiful than thy wings, and her thoughts are as light as thine. Behold this little worm playing on the grass ! No researches of luxury, no human art could imitate the green and gold which cover its wings, wherein all the colors of the rainbow are mixed.

O how beautiful is nature ! The grass and flowers grow luxurious ; the trees are covered with foliage ; the gentle zephyr salutes us ; the flocks seek their pasture ; the tender bleating lambs skip and rejoice in their existence ; millions of points of grass rise up in this field, and to each point hangs a drop of dew. How

many primroses, with their trembling leaves, are here ! What harmony in the notes of the birds from yonder hill ! Every thing expresses joy : Every thing inspires it. It reigns in the hills and dales, in woods and in groves. O how beautiful is nature ! Yes, nature is beautiful even in the least of its productions ; and whoever can be insensible to its charms, because a prey to tumultuous desires, pursues false blessings, and deprives himself of the purest pleasures. Happy he, whose innocent life passes away in performing his duty to his Maker and in the enjoyment of the beauties of nature ! The whole creation smiles upon him, and joy attends him wherever he goes, and under whatever shade he reposes. Pleasure springs out of every source, exhales from each flower, and resounds in every grove. Happy he who takes pleasure in innocent delights ! His mind is serene as a calm summer's day. His affections are gentle and pure as the perfume of the flowers around him. Happy he who, in the beauties of nature, traces the Creator and devotes himself wholly to him.

SUMMER.

REFLECTIONS ON THE SUMMER.

"Now genial suns and gentle breezes reign
"And SUMMER's fairest splendors deck the plain."

SUMMER is the Season in which the Creator pours forth the treasures of his blessings in the greatest abundance. Nature, after having charmed us with the pleasures of Spring, is continually employed, during the Summer, in completing the hopes inspired by Spring ; in providing every thing to please our senses, supply our wants, and awaken in our hearts sentiments of gratitude. Wheresoever we go ; whether we climb the hills ; range the vallies ; or seek the shade of the forests ; a variety of beauties present themselves to us ; all different from each other, but each possessed of charms sufficient to engage our attention. If we lift up our eyes, we are delighted with the radiance of the sky ; if we fix them on the earth, they are refreshed by the beautiful verdure with which it is clothed, and

presented with a most agreeable variety of flowers. The pleasing notes and the various melody of birds fill our hearts with a sweet and innocent delight : and the gentle murmurs of brooks and rivers are highly pleasing to the ear. Lofty trees and groves afford us agreeable shade ; and the fields and gardens supply us with a great variety of different fruits, that begin now daily to ripen ! and which, besides pleasing the eye and the taste, are very refreshing to the body : In short, all that we see or hear, taste or smell, increases our pleasures, and contributes to our happiness. But, in order to be more sensible of the goodness, wisdom, and power of the Creator, in his appointment of Summer, let us attend to some acts of his providence which are more particularly visible at this season.

And, in the first place, let me direct your attention to a blessing, common indeed, and therefore little regarded ; but a blessing, in itself invaluable, and absolutely necessary to our support and continuance in life ; namely, *Wheat*. Let us cast our eyes on a field of wheat, and calculate, if we can, the millions of ears of corn which cover one single field ; and then reflect on the goodness of God who thus plenteously rewardeth the labors of men, by supplying them with such an abundance of this most necessary of all food. Let us also consider the wisdom which is displayed in

the production of this precious grain. We sow it in the ground, at a certain time, (and that is all that we can do) and, as soon as the earth supplies it with a sufficient moisture, it swells and bursts the outer coat, which covered the root, the stalk, and the leaves : The root then pierces the earth, and prepares nourishment for the stalk, which, though it appears very weak, is strong enough to endure the severity of the season. By degrees it attains its proper height, and produces an ear of corn ; which is inclosed in leaves that serve to protect it, and armed with points to secure it from the birds. It seems, at first view, impossible that so slender a stalk, which grows four or five feet high, should support itself, and bear up its fruitful head, without sinking beneath the weight, or being beat down by the wind, but the Creator has wisely prevented this, by furnishing the stalk with four very strong knots, which strengthen it, but at the same time leave it the power of bending without breaking. If the stalk were weaker, the wind would break it ; if stronger, birds might perch in it, and peck out the grain ; if it were harder and stiffer, it might, indeed, resist all weather, but would it then serve, as it often does, as a bed for the poor ? To preserve the tender sprouts from accidents which might

destroy them at their birth, the two upper leaves of the stalk unite closely at the top, both to protect it, and to draw nourishing juices ; but as soon as the stem is large enough to supply the grain with sufficient juices, the leaves drop off, that the root may have nothing more to nourish than is necessary. The grain then appears, and thrives till the appointed time ; growing every day more yellow, until, sinking at last beneath the weight of its precious treasure, it bends the head of itself to the sickle ; and the joy that sparkles in the farmer's eyes, the joy of harvest, is a hymn of gratitude to the God of goodness.

From this life supporting grain we are supplied with that food which is most common, and most wholesome. Bread is as necessary at the table of a prince as at that of a laborer ; and the sick person is as much refreshed by it as the healthy. A very plain proof that bread is necessary for man is, that it is almost the only food we do not dislike, though we eat it every day : and the man who has made it his daily food for seventy years, still eats it with pleasure, though he has lost his relish for all other food. We ought, therefore, each day to praise our Creator for this blessing ; and to remember

that *he* is unworthy of the bread which he eats who is unthankful for it.

At this season of the year we have also an opportunity of observing the astonishing wisdom and power of the Creator in a vast variety of insects. Wherever we go, which way soever we look, they present themselves to our view ; and contribute, like the birds, to banish solitude from our walks, and to fill up our leisure hours with the most pleasing contemplations : For we may trace the hand of God as clearly and as fully in the smallest insect that crawleth on the earth, or flieth in the air, as in the huge elephant, or the whale that lies, like an island in the water.

The number of insects cannot, perhaps, be ascertained ; some millions are known ; but, at present, I shall confine my observations to two very remarkable ones, only seen in the summer ; the ant and the caterpillar.

Ants are famous from all antiquity for their social and industrious habits ; they have long been offered as a pattern of frugality to the extravagant, and of unceasing diligence to the sluggard.

“ The ants,” says the scripture, “ are a people not strong, yet are they exceeding wise ;

having no guide, overseer, or ruler, they provide their meat in summer, and gather their food in harvest." Their labor and diligence in collecting their stores is wonderful ; they are often seen to carry, and sometimes push before them, grains of corn, or insects, much larger than themselves ; if one faints beneath his load, another hastens to his assistance ; if any thing is too heavy for one, and cannot be divided, several of them join to force it along. In gathering their stores the loaded ants go one way, and the unloaded another, that they may not interrupt each other ; and in the whole society there is not one idle, but every one contributes something to the common stock.

May we not learn from these little creatures, who instruct not by voice, but by example, an useful lesson of activity and diligence ? and how forcibly does this example teach us to seize the fleeting moments ; to lose no opportunity of doing good ; not to waste that time which cannot be recalled in sloth or insignificance ; not to leave a talent unemployed, or a duty unperformed ? Life hath its seasons, like the year ; the time of health and strength may be considered as its summer ; and if we then labor, like the ant, we shall not only contribute to the public good,

but, probably, acquire a comfortable provision against the winter of life, when ease and rest will be very agreeable to us.

Caterpillars are creatures very disagreeable to many persons, who destroy them wherever they meet with them ; and, so far from considering them with attention, will scarcely look at them ; yet, were we attentively to consider them, we should not surely trample them under foot without observing their wonderful formation, and being convinced that in small things, as well as in great, the power, wisdom and goodness of the Creator are admirably manifested.

Caterpillars are hatched from the eggs of butterflies. During the winter they remain in an egg state, lifeless ; but the same vivifying sun that pushes out the budding leaf and the opening flower, and causes the swelling acorn to give birth to the spreading oak, calls the caterpillar also into life, to share the banquet that nature has provided for her children. Its life however, seems one continual succession of changes ; and, towards the end of the summer, after having changed its skin several times, it ceases to eat, and is employed in building a retreat, in which it quits the form of a caterpillar, and is changed into a butterfly. But the caterpillar, and the

butterfly that comes from it, appear to be two very different creatures : The former was a rough and disagreeable reptile ; the latter is adorned with the liveliest and most beautiful colors, and distinguished by ornaments which man can never hope to acquire : The former crawled sluggishly on the earth, a mean looking worm, often in danger of being crushed, and feeding on gross food ; whilst the latter soars to the sky ; ranges all the beauties of the creation, himself amongst the greatest ; sports in the sun beams ; displays his golden wings ; triumphs in existence ; and needs no other food than the dews of Heaven, and the honeyed juices which are drawn from the flowers. Who is it that hath raised this insect above the earth, enabled it to live in the air, and bestowed upon it such a profusion of beauties ? The Maker of the butterfly, and of man ; who has shewn us, in this extraordinary insect, the wonderful change that awaits ourselves ; when “ this corruptible shall put on incorruption, and this mortal shall put on immortality.”

It is likewise to be observed, that the beneficent Being, who gives wisdom to man, hath also informed the butterfly how to secure its posterity in safety, by covering the eggs from which

they spring with a sort of paste, so closely that the rain cannot penetrate, nor the common cold of winter kill the young contained in them. And we may further remark that butterflies, as well as other insects, constantly lay their eggs on such plants as will afford their young necessary food, when they are first hatched and too weak to search for it. Hence we should learn to admire the wisdom of Providence ; to cherish the love of posterity, and to remember what we owe to society.

Discontent is said to be the most general evil that troubles the life of man ; and even at this season, when nature presents every where cheerful scenes, there are some who murmur and complain. The *heat* of the summer displeases many ; they complain greatly of it as weakening and rendering them incapable of labor. But can any man seriously wish the summer less warm ? Because the heat may, sometimes, be a little inconvenient, would we wish the fruits which are to serve for our provision in the winter not to ripen ? Let us not forget that heat and cold are distributed to us in the wisest proportion ; and that the summer nights bring with them a coolness which revives languishing plants, and so refreshes weakened animals that they forget the

heat and fatigue of the day. If we studied the order, the beauty and perfection of the creation as attentively as we ought, we should cease those murmurings, which prove us equally ignorant and ungrateful ; and be convinced that, if we could alter any single part of that great machine, the world, we should do much mischief, but could make nothing better.

Summer also, say others, would be delightful, if *thunder storms* did not terrify us. The fear of thunder is perhaps, chiefly, owing to an opinion that it is the effect of the wrath of Heaven ; the minister of the Almighty's vengeance : But if we considered how much these storms contributed to purify the air, and render the earth fruitful, we should regard them as blessings more formed to inspire gratitude than terror. They sometimes indeed do mischief, but fear greatly magnifies the danger. There is, generally, some space of time between the lightning and the thunder, and whoever has time to fear is already out of danger ; for the lightning alone is fatal : The thunder, when the flash of lightning is past, is as harmless as the sound of a cannon. Superstition and fear would soon be at an end, if we reflected more attentively on the course of nature, or consulted those who are well

informed on the subject. But, if we cannot conquer the fear of thunder, let us endeavor to keep a conscience void of offence. The righteous man, calm and composed, fears nothing but his God ! and when the thunder roars, he trembles not, but looks up with humble and steadfast confidence to Him who commands the storm, and who, under appearances most dreadful, is all gracious to hear, and almighty to protect.

The awful scenes of storm and tempest, thunder and lightning, are sometimes presented to our eyes to teach us the majesty and greatness of the Creator ; but in these, as well as in more pleasing and cheerful scenes, God appears as the friend and benefactor of mankind ; and this is the season in which all nature furnishes the most striking proofs of it ; when every thing combines to please and to support us. But the time will soon come when nature will lose much of her beauty and variety, and appear in a more gloomy form : She has now almost ended her annual labor, and the nearer we approach to autumn the more do the enjoyments which arise from the various melody of birds and the cheerful scenes of flowery meadows and gardens lessen : and the ground is every where strewed with faded leaves and dead flowers. See we not here a picture of our life ? “ All flesh is grass, and all

the glory of man as the flower of the field ; the grafs withereth, and the flower thereof falleth away." Let us then be wife enough to seek our happiness in lasting blessings. Wisdom and virtue never fade ; they are unceasing sources of endless joy.

To conclude. What we observe in the summer of nature, we may observe also in the summer of life. When we have reached our fortieth year, which is the beginning of a riper age, the world loses part of its charms ; and, when we approach the autumn of life, we become a prey to cares, and are less calm and serene, less lively and joyous than we were : we find our strength grow less ; and there come days when we say we have no pleasure in them. Let us therefore enjoy this summer as if it were to be our last ; and so live as to have no reason to lament our having so often seen the return of this season.

ON THE DEW.

The gentle dews each night refresh the plain
In kindlier moisture than the copious rain.

THE wise Ruler of the world, who watches continually over his children, and provides for all their wants, makes use of more than one mean to render the earth fruitful. Sometimes it is by an inundation, like the Egyptian river Nile, which has the singular property of overflowing its banks, at certain stated periods, to water a country where it never rains. Sometimes it is by rains, which fall more or less frequently in order to cool the air and water the parched ground. But the most common mean, the surest and most universal, though which men the least attend to, is the dew. This inestimable gift of Heaven (which, even in years of the greatest drought, supports and preserves the plants from perishing,) comes in those sparkling drops seen in such profusion morning and evening on the leaves of trees and plants. Dew consists of aqueous vapors raised by heat from the earth and plants, and condensed by cold at night. By this wise plan of the Creator the plants can vegetate and grow in countries even where there is no

rain; for the soil of those parts being sandy, porous, and very moist underneath, the heat draws out a great quantity of dew, which surrounds the plants and supplies the place of rain.

Those different methods which Providence makes use of to moisten and fertilize the earth, ought to remind us of those which he employs to improve the barren heart of man, and to make it fertile in good works. How many hardened hearts oblige him to speak in thunder and lightning, as formerly on Mount Sinai ! Less terrible means are employed to save and effect others ; with a gentle, mild and persuasive voice, God calls them to himself : he awakens their consciences, and refreshes their souls with the beneficent dew of his grace. Let this conduct of our heavenly Father serve as a model for ours. Let us employ all sorts of means to reclaim our fellow creature, to make him better ; but let us particularly endeavor to gain him rather by kindness than by punishment. Let us imitate the beneficence of the Lord : we see how he refreshes the parched earth with dew ; he revives and gives new life to the plants. Let us endeavor to revive the hearts of the afflicted, the languishing, and impoverished, with benefits, and to pour as many blessings on our fellow creatures as the dew sheds upon the plants.

END OF SUMMER.

——“The fading many colored woods,
“Shade deepening over shade, the country round
“Imbrown; a crowded umbrage, dusk and dun,
“Of every hue, from wan declining green
“To footy black.”

WE no longer behold that fine enamel of the trees in blossom; the charms of spring; the magnificence of summer; those different tints and shades of verdure in the woods and meads.

The leaves are falling from the fruit trees. The grass of the field is withered. The dark clouds fill the sky, and fall in heavy rains. The dried leaves and the faded grass, are prepared by the autumnal rains to form manure to enrich the ground. This reflection, with the pleasing expectation of spring, must naturally excite our gratitude for the tender mercies of our Creator. Though the earth is losing its beauty and exterior charms, and is exposed to the murmurs of those it has nourished and cheered, it is already beginning again to labor secretly within its bosom for their future welfare.

Perhaps our own lot in this world has its seasons: if it be so, let us in the decline of life have recourse to the provisions laid up in the days of prosperity: and endeavor to make a good use of the fruits of our education and experience. Happy, if we carry with us to the grave the merit of having been useful to society.

*REFLECTIONS ON THE SUMMER WHICH HAS
JUST PASSED.*

" 'Twas Spring, 'twas Summer, all was gay,
" Now Autumn bends a cloudy brow ;
" The flowers of Spring are swept away,
" And Summer fruits desert the bough."

JOHNSON.

THE fine days of summer are flown ; and while we were preparing to enjoy them, they disappeared, and are gone. But have we a right to murmur at the dispensations of God ? No, certainly we should rather recollect the past season, with the innocent pleasures it afforded, and bless the Ruler of the world for them. What sweet sensations they create ! With what pure joy the soul is filled, in contemplating the beauties of creation ! When the mountains and valleys grow green before our eyes ; when the lark, soaring in the bright clouds, and the feathered choristers in the shady grove, warble their sweet song ; when the flowers perfume the air around us ; when the morning dawn diffuses universal gladness : or when the setting sun tinges our

woods and hills with the finest glow ; what happiness does the enjoyment of nature in full beauty afford us ! What rich gifts do the gardens, fields, and orchards, bestow upon us, exclusive of the pleasures they offer to the senses and the imagination ! Can we reflect on the months that are passed, without a grateful emotion, and without blessing the Parent of nature, who has crowned the year with his mercies ? We are now living upon the productions of summer. We have observed how active nature has been during this fine season, in fulfilling the Creator's beneficent views in favor of man. How many plants and flowers bloomed up in spring ! How much corn and fruit has the summer ripened, and how pleasing is the prospect of a plentiful autumnal harvest.

Let us ask ourselves whether the pleasures of the summer have made us better or more grateful ? Have we raised our hearts towards God in the contemplation of nature ? What have our employments been in the long summer days ? Have we done good to our fellow creatures ? In beholding the sun, the flowers, and so many delightful objects, have we experienced the sentiments which this magnificent scene ought naturally to inspire ? Or are we conscious

that this summer, like many others, has been thrown away upon us ?

Let us bless God that we still exist upon earth, let us reflect also that this may be our last summer. And knowing that we shall be accountable for all those that we pass, let us from henceforth try to redeem the time that we have lost.



*A REMEMBRANCE OF THE BLESSINGS WHICH SPRING
AND SUMMER AFFORD US.*

“ Summer brought on the fruits which Spring had sow’d,
“ And nature triumph’d in her genial prime :
“ Autumn succeeded, and rich sheaves bestow’d,
“ And golden plenty fill’d the ear of time.”

COME, O my friends, let us acknowledge the goodness of the Creator. Let us gratefully recal the time we have pass’d in the fulness of joy, when, free from cares and anxiety, the renewal of nature fill’d us with delight ; when devotion follow’d us to the bower, and even the shadow of sorrow was banish’d our habitations ; when, hand in hand, we sought the flowery paths in pursuit of the Creator, whom we found on every side. Friendship, harmony, and innocent mirth, combin’d to heighten and endear our pleasures. Smiling nature lavishing her flowers upon us, we breath’d the balsamic odor of roses. The pink and gillyflower perfum’d the air around us ; and, towards the evening of a fine day, the playful zephyrs wafted sweets to us on their light wings. Then were our souls fill’d with mild delight : Our lips open’d in thanksgiving to the

Lord, and our voices mixed with the songs of the birds. At other times, when the breath of the wind had cooled the burning heat of the day, and the birds felt animated with new life ; when the clouds were all dispersed, and the great luminary promised to be favorable to us, pleasure gave us wings ; we cheerfully forsook the noise of cities, to seek the green shades, nature's bowers. There we were undisturbed. Wisdom, piety, joy, and innocence, attended us to this rural asylum. The trees waving with the breeze, while they covered us with their shade, conveyed the most refreshing coolness to us, and Nature drew forth rich sources of content to pour into our pure hearts. There, entirely given up to the Creator, to nature, and to reflections on our happiness, tears of sensibility filled our eyes. This magnificent universe, said we, is too beautiful to be the abode of the man who can unfeelingly behold it. As for us, who love God, we discover in the zephyr, in the stream, in the meads and flowers, in the blade of grass, and the ear of corn, traces of his eternal wisdom, and, throughout all nature, heralds of his power.

AUTUMN.

REFLECTIONS ON THE AUTUMN.

" Fair plenty now begins her golden reign,
" The yellow fields thick wave with ripen'd grain ;
" Joyous the swains renew their sultry toils,
" And bear in triumph home the harvest's wealthy spoils."

If the variation of the seasons did not awaken our recollection of the flight of time, we should, probably, not observe the succession of its different parts ; but spend our days and months and years thoughtless of the past, and careless of the future. The gradual and elegantly varied change of seasons is, therefore, a proof of the goodness of God, and may be a means of our instruction and happiness.

It is impossible to ascribe this variation to chance,* as, in every country, the seasons succeed

* " What careless and inconsiderate men ascribe in common speech to chance or fortune, that is, to *nothing at all*, but a mere empty word, signifying only their *ignorance* of the true causes of things ; this the scripture teaches to ascribe to the all-seeing and all-directing Providence of God."

each other in the most regular manner, and exactly at the time appointed ; and, as order is the great law which the Creator has laid down for the government of the world, it is our duty to study the order and perfection of his works ; and, in every season of the year, to trace his wisdom and goodness.

At that season, indeed, which is called *Autumn*, or more generally, in common language, *the fall of the year*, we see little that recalls to our minds the universal joy which lately reigned through all animated nature. We no longer behold the charms of spring or the magnificence of summer. The earth, no longer exhibiting that beautiful appearance which the grass, the flowers, and the corn lately gave it, presents little more to our eye than a dead, yellowish hue. The woods and gardens are stripped of that great ornament, their leaves. Scarcely any traces of the golden harvest remain. The fields, which have bestowed such abundance upon us, promise no more this year. The winged songsters are silent : and even the sun, when it shines, appears not in its usual glory. Unthinking and ungrateful men, forgetting what they have so lately and so plentifully received, complain of these things ; but wiser and well disposed persons, observing that nature faithfully fulfils the eternal law of

being always useful, reflect with gratitude on the months that are lately past, and bless the Parent of Nature who has "crowned the year with his goodness."

Stripped and desert as the earth is, it still presents to a feeling mind the image of happiness; we may recollect that the fields, which are now barren, were lately covered with plentiful harvests; and the remembrance of what they have bestowed upon us should silence the murmurs of those whom it has cheered and nourished.

Indeed we yet continue to receive pleasure from a variety of fruits which the goodness of God lavishes upon us in great abundance. Calculate, if possible, the fruit which one hundred trees bear in a favorable season, and you will be astonished at the increase. What was the design of such abundance? If the preservation and increase of trees only was the intention, a much less quantity would have been sufficient. It is, therefore, evident that the Creator designed to provide food for man, and particularly for the poor, whom an abundance of fruit furnishes with a cheap means of subsistence which is not only agreeable, wholesome, and refreshing, but is also very useful in the medicinal way. And it is a farther instance of the goodness of God that these fruits are bestowed upon us in a gradual manner,

and with the most wise economy ; that, on the one hand, too great an abundance may not be a load to us ; and, on the other, that we may receive a constant succession and variety of enjoyments. In proportion, indeed, as we advance in winter, the number of fruits begins to diminish ; but art has taught us to preserve them in that season also ; and notwithstanding the ravages of birds and insects, there still remains a sufficient quantity for the use of man.

Thus God, like a tender parent, provides not only for the support of his creatures, but also for their pleasure. Shall we not, then, be highly blameable if the enjoyment of the blessings, which we owe to the munificence of our Creator, does not produce in us grateful reflections, and thus sanctify the pleasures of autumn ?

It is also a proof of the wisdom and goodness of the Creator that the weather grows gradually cold. Were the earth *suddenly* to be deprived of the summer's heat, it would be fatal to our gardens and fields. All plants would perish. Spring would produce no flowers, nor summer any fruit. It is by no means, therefore, of little consequence that, from the end of summer to the beginning of winter, the heat should *gradually* give place to the cold : These insensible changes were necessary for the preservation of the fruits

of the earth ; and not for this only, but also for the prevention of the disorder, perhaps the destruction, of the human frame.

With what kindness, therefore, has our Creator guarded our health and lives, by granting us such a temperature of air, during the months immediately following summer, as prepares us, by degrees, to bear the increase of cold without any bad effect !

There are also many other creatures who, if the winter were to come without any preparation on them, would be unable to endure it. Two thirds of the insects and birds would be destroyed in one night : But now, by the gradual progress of cold, they have time to make the necessary preparations against it. The increasing cold of autumn warns them to seek places where they may sleep quietly and securely during the severe season, or to remove into warmer countries.

The *migration of birds* is as astonishing as any thing in the whole compass of nature ; and in this we may discover the wise and kind direction of Providence, and the wonderful means which God employs to preserve many birds, and point out their subsistence to them, when it fails in some countries. They regularly assemble at a certain time, in order to depart all together ; scarcely a deserter is seen on the day that succeeds their departure ; and every circumstance

of their journey has something in it almost miraculous. We are at a loss which most to admire, the force that sustains them in so long a passage, or the order in which the whole is accomplished. It is truly wonderful that these creatures should know the most proper time for their passage. The difference of heat and cold, and the want of food, may incline them to change their habitation ; but how comes it to pass that, when the air is so mild, that they might remain, and find food enough, they never fail to depart at the appointed time ? Or how do they know that they shall find food, and a proper degree of heat in other countries ? Shall we suppose that they have any remembrance of the country where they passed a former winter ; that they see the land to which they go from their height in the air ; that they follow the weather, and continue their flight till they find a climate suitable to their present disposition ; or, rather that, like shoals of fish, they pursue their prey ? Their food is insects ; with which, in summer evenings, our atmosphere abounds ; and birds, who prey upon them, come hither in the summer, because our air is moister than that of some other countries, and therefore produces multitudes of these insects ; but, on the approach of cold weather, they die, and then these birds necessarily quit us, and follow their food.

But that these creatures, who are void of reason, should know so exactly the way they are to go ; should do, what man cannot do, steer their course unerringly over seas and lands, and complete their long journey without assistance, without a guide, without provisions, in the most regular order, through rains, and winds, and darkness ; that they should fly in large companies, in order to be less liable to be driven out of their course by storms ; and that, when the wind is contrary, they should wait until it changes, are circumstances really astonishing ; and they furnish a remarkable instance of a powerful instinct impressed on them by the Creator, who is their pilot and preserver. The consideration of these wonderful circumstances may employ, in a very pleasing manner, those whose hearts are disposed to the contemplation of the works of nature, and raise them to still nobler views ; to the adoration of *Him* from whom these creatures have received their faculties, and who has prepared and combined so many things for the support and increase of this part of his creation.

This, likewise, is the season in which great part of the food for ourselves, and many other creatures, is committed to the earth. The farmer now sows his winter grain, and leaves it to corruption, to the rain, the storms and the sun,

and knows not what will be the event : for, after all his labors, man can do nothing, but as an instrument in the hand of Providence, towards the production of a plentiful harvest, or even of a single ear of corn. “ Except the Lord bless the ground, your labor is but lost that till it ; it is in vain that ye haste to rise early, late take rest, and eat the bread of carefulness ;” if God does not cause his sun to shine and his rain to fall in their season, your strength, in the very just representation of the prophet, is but “ to sit still.” Man soweth, but God giveth the increase ; and, when men have done all that is in their power, God supplieth whatever is beyond their ability. In the winter, whilst the husbandman resteth from his labors, the Almighty covereth the precious seed, as with a garment ; destroys, by frost, the weeds that would oppress the rising stalk, or draw off its nourishing sap ; and causeth it in returning spring, gradually, to spread a beautiful verdure over the face of the earth, giving the promise of a plentiful harvest. In the summer, he warms it by the beams of the sun, and refreshes it by rain. Thus all nature, in every season, tends to the general good, and the fruitfulness of the earth, under the direction of the God of seasons. The more strongly to impress you with the conviction of this important truth,

God is sometimes pleased to disappoint your expectations ; by first sending, as the effect of your industry, a plentiful crop, and then, as a punishment for your ungrateful inattention to his Providence, denying you the opportunity to “ eat thereof.”

And, surely, when creatures forget their dependence upon their Creator, it is proper that they should be awakened to a sense of their duty by chastisements affecting them in the very instance of their forgetfulness and ingratitude ; to convince them that the success of their labors depends entirely upon Providence ; and that, although the fruits of the earth may be called their's, the seasons for gathering them are God's. Let us therefore, when we see the fruits of the earth brought to maturity, and provision made for our support through another year, direct our grateful thoughts to that Being on whom we constantly depend, and from whose unceasing bounty we derive all our supplies. He daily loadeth us with benefits ; but the bounty of harvest is too rich a blessing to be daily bestowed. This comes only in its “ appointed weeks.” Let it be received with thanksgiving and joy : and celebrate the praises of that ever gracious Providence who replenished our granaries with corn, loaded our trees with fruit, and crowned with plenty the autumnal months !

HARVEST HYMN.

- “ Brown o’er the wide extended fields
“ The heavy harvest waves ;
“ Its treasure to the reaper yields,
“ And forms the ponderous sheaves.
- “ The loaded stack, the spacious barn,
“ Receive the plenteous store ;
“ The blessings of the coming year,
“ The riches of the poor.
- “ Now, grateful for the bounty given,
“ Let constant thanks arise,
“ For every bliss that falls from heaven,
“ Each hope beyond the skies !”
-
-

OUR fields crowned with fruits and with corn, are a hymn to the Lord. The joy that sparkles in the eyes of the farmer is a hymn to the God of nature. It is he who makes the earth produce bread, and he that loads us with blessings. Let us assemble together, and celebrate the goodness of the Lord. Let his praise be evermore the subject of our song. Let us hearken unto the words he speaks to us, from the bosom of our fertile fields. “ The year will crown thee with blessings, O world ! Thy happiness is my work : the crops and the harvest are the effects of my power. The rich meadows, and the hills

covered with corn, are mine." Yes, Lord, we behold thy grandeur, and we feel the value of thy favors. It is through thee that we exist : life and food are the gifts of thy hands.

We will rejoice in thy blessings ; and our children will repeat after us : the God of heaven is our Father, the Lord, the almighty Lord is God !

Praise waiteth for thee O God, and unto thee shall the vow be performed. Thou makest the outgoings of the morning and evening to rejoice. Thou visitest the earth and waterest it. Thou enrichest it with the dew, and cheerest it with the sun. Thou preparest the ridges thereof, and they are fruitful ; and the vallies are covered over with corn. Thou bledest the labors of man, and crownest the year with thy goodness !

WINTER.

REFLECTIONS ON THE WINTER.

" Oh WINTER ! ruler of the invested year !
" Thy scatter'd hair with fleet like ashes fill'd,
" Thy breath congeal'd upon thy lips, thy cheeks
" Fring'd with a beard made white with other snows
" Than those of age ; thy forehead wrapt in clouds,
" A leafless branch thy sceptre, and thy throne
" A sliding car, indebted to no wheels,
" But urg'd by storms along its slippery way ;
" I love thee, all unlovely as thou seem'st,
" And dreaded as thou art !"

COWPER.

IF we were to examine the works of the Creator more attentively than we do, we should find, even at this season of the year, many reasons to rejoice in his goodness, and to praise the wonders of his wisdom. Few persons are so insensible as not to feel emotions of pleasure and gratitude when the spring, the summer, and autumn, richly display the bounties and the blessings of Heaven ; but, when they see the trees stripped of their fruit, and the fields without verdure ; when the bleak winds whistle around their dwellings ; when " God giveth snow like wool, and

scattereth the hoar frost like ashes," their hearts are seldom affected by gratitude.

The other seasons, the value of which is so little felt whilst they pass, are often extravagantly commended in the winter, when they can be no longer enjoyed. Such is the too common disposition of men; they do not esteem the blessings they possess as they ought, nor know their value, until they are deprived of them.

But is it indeed true that the spring, the summer, and the autumn alone deserve our attention and praise; and that winter is deprived of the blessings of Heaven, and void of motives to gratitude and piety?

If we could see the chain of Providence which links all nature, great would be our admiration of the wisdom and goodness of its Author. But, however incapable we are of forming a judgment of the whole of the Creator's works, the little we do understand of them gives us abundant reason to acknowledge that the government of God is infinitely wise and good. Winter is a part of the Creator's plan; and, if we consider it seriously, we shall find great reason, even in winter, to praise our constant benefactor.

Millions of rational creatures, dispersed over the different countries of the world, are provided, at this season, with all the necessaries of life. But we must not confine the wisdom and good-

ness of God to mankind ; his care, during the winter, extends to animals far more in number than the rational creatures that inhabit the earth, who find their food on the surface and in the bosom of the earth, in the fields, the forests, and mountains, in caves, and the hollow parts of rocks, in the rivers and the seas : and, however wonderful the preservation of mankind may be, we must confess that the care of Providence towards animals is a still more astonishing proof of the wisdom, power, and goodness of God ; who “ openeth his hand, and giveth unto all his creatures their meat in every season.”

That the prodigious number of animals which the world contains should find food and habitation during the summer is not, perhaps, so surprising ; but that, in this season of the year, when the earth seems exhausted by its fruitfulness, the same number of creatures should continue to exist is truly astonishing.

To guard animals against the usual severity of the weather, Providence has furnished most of them with a covering which enables them to endure the cold. Some are covered with hair ; some with fur ; others with feathers ; and many with scales and shells. Each animal has what best suits it ; nothing unnecessary, nothing wanting ; and every thing so complete, even in the lowest creature, that all the art of man

cannot imitate it. Many animals also, when the cold obliges them to quit their summer dwellings, find a retreat in “clefts of the rocks” and caves; whither some of them carry beforehand the food which is to support them during winter. This cannot be done from foresight in these creatures, for that would be to suppose them endowed with more understanding than they possess; it must therefore be in consequence of the direction of a superior power, whose views they fulfil without knowing it.

There are also animals who find their subsistence under snow and ice; and, probably, many means made use of by Providence for the preservation of his creatures are unknown to us. One circumstance is particularly remarkable; namely, that several animals pass the winter in a profound sleep. Their bodies seem to be so formed that the cold benumbs them, and they fall into a sound sleep; which continues till the return of heat opens the earth, causes their necessary food to spring, and awakens them from their heaviness. How admirable is the wisdom of God, who has pointed out to these creatures the places where they may sleep in safety their night of winter, when they can no longer find food; and who revives them, when the season of their new life arrives!

Can we, on considering these things, fail to adore the gracious Father of all, to whom every animal, from the elephant to the mite, owes his dwelling, his food, and life? Let this consideration strengthen our confidence in our Heavenly Father. Oh "ye of little faith," anxious, restless, and discontented, pause and reflect on the goodness with which the Almighty sustains the beasts of the field and the forest, the birds of the air, and the fishes of the sea; all of whom find, in all seasons, proper food and habitations; and then ask yourselves whether he who shews himself so great and good in smaller objects will neglect the more important; whether God, who does not disdain to provide for the worm, will forget mankind? And let this consideration teach you to imitate the generous care of Divine Providence, in contributing not only to the happiness of your fellow creatures, but even to the welfare of all that lives. They, who are not corrupted by bad habits, are naturally inclined to compassion towards every thing that has life and feeling. This disposition does honor to man; and he who has rooted it out has but one step more to make; which is, to refuse to his fellow creatures the compassion he denies to brutes, and he will then be a *monster*.

But the goodness of God in the appointment of this season will appear still more plainly, if we

consider that winter, so far from being prejudicial to the fruitfulness of the earth, is very favorable to it ; and that this is the season of rest so necessary to nature.

In the preceding months she exerted herself in fulfilling the designs of the Creator by laboring in the service of his creatures : Like a good mother of a family, she employed herself from the morning to the evening of the year in procuring for her children the necessaries, the conveniences, and comforts of life. Tired of so many cares she now resteth ; but it is only to collect new force to be employed again for the benefit of the world ; to prepare in silence a new creation, and make the necessary dispositions that the earth may recover, at the end of a few months, the children she has lost. This repose is not less necessary to us, or less worthy of Providence, than the activity she shews in spring and in summer ; and the Almighty, in granting rest to the earth, enriches man with blessings, to which the winter rains, however disagreeable they may seem, very much contribute. They are the source of all the beauties and treasures which the spring and the summer lavish on us, and prepare for a fruitful and plentiful year ; they revive the earth, fill the rivers, and furnish the springs with water ; the blessings therefore

which we receive from them are as innumerable as the drops which fall from the clouds ; and for this reason, instead of murmuring on account of the winter rains, as inconvenient and unpleasing, we should be most thankful, considering them as the causes of fruitfulness ; for the earth requires not only rest, but moisture, to recover its strength ; and to this gracious purpose does the snow also contribute.

From appearances we might be inclined to think that *snow* cannot be useful to the earth ; but the experience of all ages has taught us that nothing better secures corn, plants and trees from the bad effects of cold than snow. The *salt* also, which snow contains, when softened by the sun, and dissolved gradually, is supposed to enrich the earth more than rain, or other manures ; agreeably to the words of the scripture, “ The rain cometh down and the snow from Heaven, and returneth not thither, but watereth the earth, and maketh it bring forth and bud, that it may give seed to the sower, and bread to the eater.”

We all of us often see snow fall, but very few of us, it is to be feared, consider its nature or its use. Such, however, is the fate of many things which we have almost daily before our eyes, though we receive great advantages from them. Let us learn to be wiser ; and reflect that God

hath ordained that the rain, which in the summer cools and refreshes the earth, should, in the winter, fall in the form of soft flakes of wool, and screen the fruits of it from the inclemency of the cold.

And, as God "giveth snow like wool," so doth he also "scatter the hoar frost like ashes." When the dew falleth in a cold night, it freezes, and the face of the earth is covered with the hoar frost ; which lies, like ashes, upon the corn and grass, and hangs on plants, and boughs of trees, very pleasing to the eye, though very piercing where it falls. This also cometh from God, "who is wonderful in counsel and excellent in working."

But although the earth, at this season, may be compared to a mother who has been deprived of those children from whom she had the best hopes, she is not bereaved of all her children. Many vegetables preserve their verdure in winter, and lose none of their summer ornaments ; and they are emblems of that virtue which is immortal, and survives all outward beauty ; emblems of that most respectable character, a benevolent old man ; who, in the winter of his life resembles those plants which flourish with undecaying verdure ; in whom a mild cheerfulness, the happy remains of his spring time, is seen ; whose virtues make

ample amends for the ravages which age may have made on his person ; and whose wisdom, integrity, and experience, serve for examples and lessons to all around him.

We have reason also to praise God for winter, which is certainly very useful ; and, even supposing that its advantages were not so apparent, it would be sufficient for us to know that winter is the work of the Creator, and that all which comes from him must be for the best. They also who are desirous of making use of every opportunity to improve their hearts, will gladly be reminded of the obligation they are under of employing even their winter days so as to become days of comfort to their souls. It is easy to prove how agreeable as well as advantageous this duty would be. How rational and cheerful would our piety be, if each new appearance of nature led us to trace it up to our Father and our God ! When we see the earth covered with snow, the rivers clogged with ice, the trees stripped of their leaves, and the whole face of nature barren and desolate, let us reflect on the design of the Creator in thus ordaining it, and we shall soon be convinced that every thing is planned with wisdom, and that all the laws of Providence combine for the general good.

There are many objects at this season, which may furnish us with useful reflections, and not only agreeably employ our minds, but amend our hearts. The shortness of the days should lead us to reflect on the short duration of human life ; and on the wisdom, the importance, and necessity of making a good use of our time : and the suddenness with which night sometimes comes on, and interrupts us in the midst of our employments, should teach us to be careful that death does not surprise us when we least expect it, in the midst of our schemes for many years to come.

As nature, after fulfilling the designs of the Creator, resteth from her labors during winter ; so man, whose provision is made, and whose wants supplied, enjoys a repose suitable to the season. Happy they who employ it in cultivating their minds, improving their hearts, and laying up the treasure of good works.

Does the winter contribute to our health ? Let us then not be so imprudent as to make that season disagreeable, or painful, which may be the source of the purest pleasures ; nor destroy, by intemperance, that health which the Lord of life would preserve with so much goodness.

Have we a warm dwelling ? Do we enjoy the conveniences and the comforts of life ? Should not this teach us to consider our poor fellow

creatures ; some of whom, fore pierced by wintry winds, have, perhaps, neither food, nor fire, nor raiment ; are stretched upon the bed of sickness, and too modest to proclaim their wants ? Winter renders beneficence to the poor the more necessary, because it increases their wants ; and we give a double value to our kindness when we bestow it seasonably. The more the severity of the season increases, the more ready we should be to relieve the necessitous, and to pour into the bosom of poverty all that we can spare. It is our duty to soften the calamities of our distressed fellow creatures, to give them of our abundance, or share our little with them. Recollect that the mercy and goodness of the God of seasons continually attend you through all the changing scenes of life ; that if you are happy in your health, your fortune, and character, you owe all to him ; that it is he who “causeth one man to differ from another ;” and that the best return you can make for his mercies and blessings, is to soften, as much as you can, the distresses of your fellow creatures, and to permit no one to sink under misery, which it is in your power to relieve.

DUTY OF COLLECTING OUR THOUGHTS IN WINTER.

“ Now, all amid the rigors of the year,
“ In the wild depth of WINTER, while without
“ The ceaseless winds blow ice, be my retreat,
“ A rural, shelter'd, solitary scene;
“ Where ruddy fire and beaming tapers join
“ To cheer the gloom. There studious let me sit.”

THOMPSON.

THOSE who are solicitous to make use of every opportunity to improve their minds will gladly be reminded of the obligations which they are under of employing even their winter days, in useful study and serious meditation. It is easy to prove how agreeable as well as advantageous this duty may be made. How perfect would our piety become if every change, every new appearance of nature led us to trace it up to God, whose glory is as manifest in winter as in any other season !

“ In the summer season the warm temperature of the air, the beauty of a vivid foliage, and the sweet smiles of universal nature, allure men from their studious retirement, and tempt them to roam in the sunshine from flower to flower like the butterfly. But when the days are gradually contracted, and the cold weather causes the

swallow to wing her way to more genial climes, the gaudy insect to retire to its warm and safe concealment, and the leaf to assume the yellow and russet tinge of autumnal decay, and at length to drop from its parent branch, the man of sentiment sympathizes with the scene around him, shrinks under his roof and into himself; and seeks that solace which the sunny hill and the verdant mead no longer afford him, at the fire side, in the converse of those whom he loves or esteems; or in an elegant and philosophic solitude, reading, writing, and contemplating the productions of art during the repose of nature.”*

Now is the time to open the volumes of science, and store the mind with the lessons of wisdom: to peruse the instructive pages of history, and thence draw encouragement to virtue and dissuaves from vice, by seeing their effects in the example and fate of others.

This season of leisure and retirement should also be improved to the purposes of examining our own hearts and lives. Thus let us improve it. Let us correct our errors, and strengthen the principles, the dispositions, and habits of goodness. Calling in our thoughts, so apt to wander, let us

* The compiler has taken the liberty of introducing the above paragraph from Dr. Knox's Winter Evening Lucubrations.

employ them to worthy purposes ; engage them in the pursuits of science, or exercise them in the all important concerns of religion. Let us realize the vanity of life ; arrange our temporal and spiritual affairs ; gradually detach our affections from the world ; and prepare for a superior region, beyond the storms of wintry time, and the uncomfortable vicissitudes and blighting disasters of mortality.



HYMN OF PRAISE TO GOD.

“ O let for all, our grateful praise arise,

“ To him whose mandate spake the world to form :

“ SPRING’s lively bloom and SUMMER’s cheerful skies,

“ AUTUMN’s rich field, and WINTER’s healthful storm !”

SCOTT, OF AMWELL.

ALL the heavenly host glorify the power and majesty of the Creator, and all the globes which roll in the immense expanse celebrate the wisdom of his works. The sea, the mountains, and the woods, created by a single act of his will, are the harbingers of his love, the heralds of his power. Shall I alone be silent ? Shall I not attempt to offer up thanksgiving though the pure spirits themselves can offer but imperfect praise ?

By what power do those millions of suns shine with so much splendor ? Who directs the wonderful course of the spheres ? What chain unites them ? What force animates them ? It is thy breath O Lord ! It is thy almighty word. Thou art all in all. Thou calledst the worlds, and they obeyed. Then was our globe produced. The birds and the fish, the cattle and the wild beasts of the field, and lastly man himself came to in-

habit it and rejoice. It is through thee, that the hand of spring spreads the green lawn under our feet. It is thou that gildest the corn, and givest purple to the grape ; the summer glows with thy goodness ; autumn is loaded by thy bounty ; and winter supplied with thy stores.

Through thee the mind of man penetrates the system of the universe, and becomes a proficient in the knowledge of thy works ; is susceptible of the pleasure, and participates the bounty of nature. In thee we live and move and have our being. O may we live to thee, and with thee forever.



RAPIDITY WITH WHICH LIFE PASSES AWAY.

——— “ Behold, fond man !

“ See here thy pictur'd life ; pass some few years

“ Thy flowery Spring, thy Summer's ardent strength,

“ Thy sober Autumn fading into age,

“ And pale concluding Winter comes at last

“ And shuts the scene.”

THOMPSON.

OUR life is short and transitory. Let us consider with what swiftness the days, the weeks, the months, and the years have passed, or rather flown away. They were over even before we perceived it. Let us endeavor to recall them to mind and to follow them in their rapid flight. Is it possible to give an account of the different æras ? If there had not been in our lives certain very remarkable moments, which made impression on our minds, we should be still less able to recollect the histories of them. How many the years of our infancy, of which we can say nothing but they have glided away ? How many others have passed in the thoughtlessness of youth ; during which, misled by our inclinations, and given up to pleasure, we had neither the wish,

nor the time, to look into ourselves ? To these years succeeded those of a riper age, more capable of reflection. We then thought it was time to change our way of life, and to act like reasonable beings, but the business of the world took possession of us to such a degree that we had no leisure to reflect on our past lives. Our families increased, and our cares and endeavors to provide for them increased in proportion. Insensibly the time draws nigh when we shall arrive at old age ; and perhaps, even then, we shall neither have opportunity nor force of mind to recollect the past, to reflect upon the period to which we are come, upon what we have done, or neglected to do ; in a word, to consider the purposes for which we were placed in this world. In the mean time how are we certain of ever attaining advanced age ? A thousand accidents break the tender thread of life before it comes to its full length. The child, just born, falls and is reduced to dust. The young man, who gave the highest hopes, is cut down in the age of bloom and beauty ; a violent illness, an unfortunate accident lays him in the grave. Dangers and accidents multiply with years ; negligence and excess lay the seeds of maladies, and dispose the bodies to catch those that are epidemical. The last age is still more dangerous. In a word, half of those who are

born are carried out of the world, and perish in the short space of their first seventeen years. Behold the concise, but faithful history of life ! O may we employ those days, so short, and so important, in learning how to number them, and to redeem the time which flies so swiftly away ! Even whilst we make these reflections some moments are flown. What a precious treasure of days and hours should we not lay up, if, from the moments which we have to dispose of, we often devoted some of them to so useful a purpose ! Let us think of it seriously ; every instant is a portion of life impossible to be recalled, but the remembrance of which may be either the source of joy or sorrow. What heavenly enjoyment it is to be able to look happily on the past, and to say to one's self with truth, "I have lived so many years, during which I have gained much knowledge, enjoyed much happiness, and done much good." We should be able to hold this language, if we fulfilled the end for which life was given us ; if we devoted the short space of time to the great interests of eternity.

INSTABILITY OF EARTHLY THINGS.

——— “ Life speeds away

“ From point to point, though seeming to stand still,

“ The cunning fugitive is swift by stealth ;

“ Too subtle is the movement to be seen ;

“ Yet soon man's hour is up, and we are gone.”

YOUNG.

THERE is nothing in nature that is not liable to change. Every thing is uncertain and frail. Nothing is durable enough to remain always like itself. The most solid bodies are not so impenetrable, nor their parts so closely united, as to be secure from dissolution. Each particle of matter insensibly alters its form. How many changes has each of our bodies undergone since its formation ! Every year it has lost something of what made a part of itself, and has acquired new matter from vegetable and animal substances.

Every thing on earth increases and decreases by turns ; but with this difference, that the changes do not operate so quickly in some bodies as in others. The celestial globes appear to be still the same as at the moment of their creation, and they are, perhaps, the most invariable of all bodies.

Those however who have observed them with attention, perceive that some stars have disappeared, and that the sun has spots which change, and thus they prove that it is not constantly the same. Its motion also makes it liable to variation ; and though it is never extinguished, it has been obscured by fogs, clouds, and even by internal revolutions. This is all we can know of it at the immeasurable distance there is between us. How many other external, as well as internal changes, should we discover, were we nearer !

If we are more struck with the instability of *earthly* things, it is because they are within our view. And how frail are these ! How liable to change ! Each object continues to look like itself, and yet how different in reality is it from what it was ? We daily behold things taking new forms ; some growing, others diminishing and perishing. This year, which will soon be at an end, affords undeniable proofs of it. In each one's own little circle he must have experienced many revolutions. Several of those we had known for many years are no more. Many persons whom we have seen rich are become poor, or are at least but in indifferent circumstances. If we examine ourselves also, we shall find a difference in many respects. Have not our health and activity diminished ? And are

not all these things so many warnings of our approach towards that great and final revolution which death will operate upon us. Besides, there are many changes which may still take place in the short term of life allowed us. We may soon become poor, or sick ; we may experience the infidelity of friends, or the approaches of hastening dissolution. Many things certainly may happen which it is at present impossible to foresee. Such reflections must inevitably oppress and sink us to despair, if religion were not our support and consolation. But this leads us to look up to the only invariable, everlasting Being, whose very nature is immutability, and whose mercy has no end. Full of confidence therefore in his unchangeable goodness, let us submit with resignation to all the changes of this transitory world.

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CLOSE OF THE YEAR.

“ Now I will climb yon rough rock’s giddy height,
“ That o’er the ocean bends his brow severe ;
“ And, as I muse on time’s neglected flight,
“ Wait the last sunshine of the parting year.”

MERRY.

THE close of the year leads me to reflections which, however important they may be, do not always occupy me as they ought. In order to feel more sensibly how short the term of life is, I will examine the use I have made of my past days ; though I have reason to believe it will prove a subject of humiliation to me. I first recal to my mind those days the use of which it was not in my power to command. How many hours were then employed in mere bodily wants ? How many more have passed in trifling occupations of no service to the mind ? Thus in slightly looking over the use made of these years, I discover a multitude of days lost to the immortal soul, which inhabits this body of clay ; and, after these deductions, what will remain which I may justly say have been employed for real happiness ? Out of 365 days, it is plain, that I can scarce reckon fifty.

And of the little that remains of time, how much do I lose by my own fault and weakness. How many days have been sacrificed to vice and folly. Perhaps many of those granted me for reflection have been devoted to the world, to vanity, idleness, and false pleasures. Perhaps they may have been profaned by impurity, envy, jealousy, slander, and other vices, which betray a heart void of respect for God and charity to our neighbor. Even when inspired with a desire to walk in his paths, how much time is irrecoverably lost in thoughtlessness, indifference, doubts, anxiety, want of temper, and all those infirmities which are the effects of frailty. Alas ! how swiftly does the little space of time we can dispose of fly away ! A year passes almost insensibly ; and yet a year is of great consequence to a Being whose life is reckoned by hours. Before we have well thought of it, a year is gone. When we recollect how little of it we may have spent suitably to the purposes of our creation, we may well wish to recal those hours which were ill employed. But it is in vain. The year, with the good and bad actions which have marked it, are swallowed up for ever in eternity.

Let this awful thought influence our minds so as to redeem the time we have lost, by making the wisest, the most virtuous improvement of what remains.

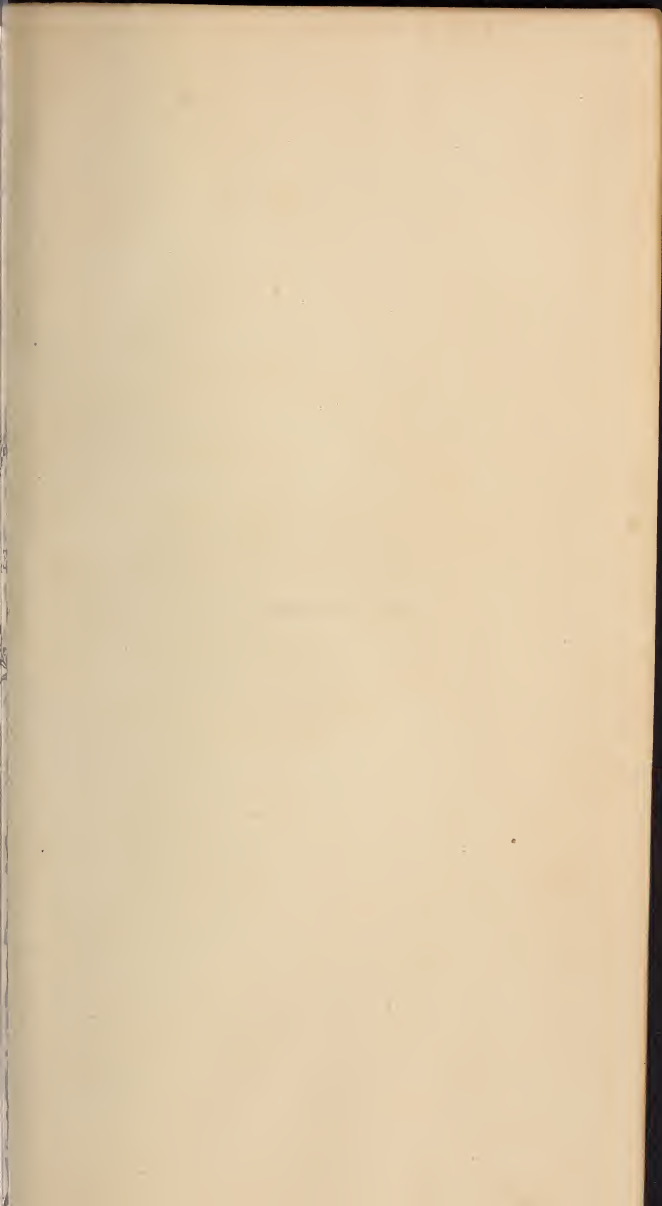
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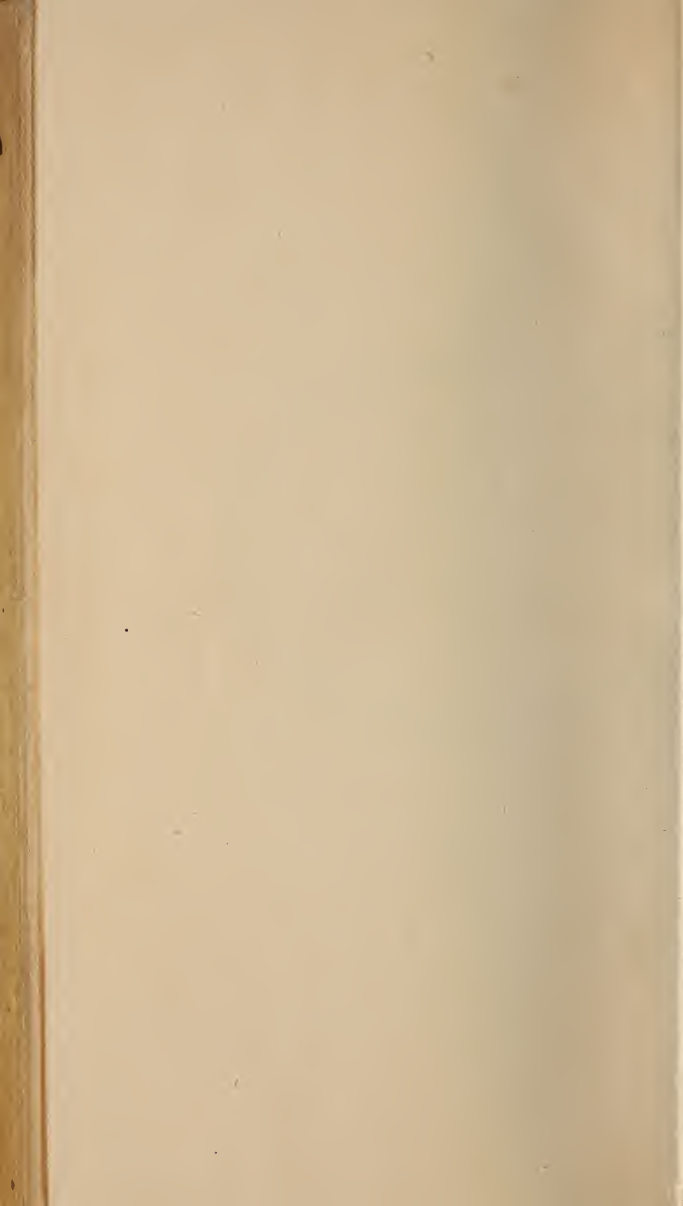
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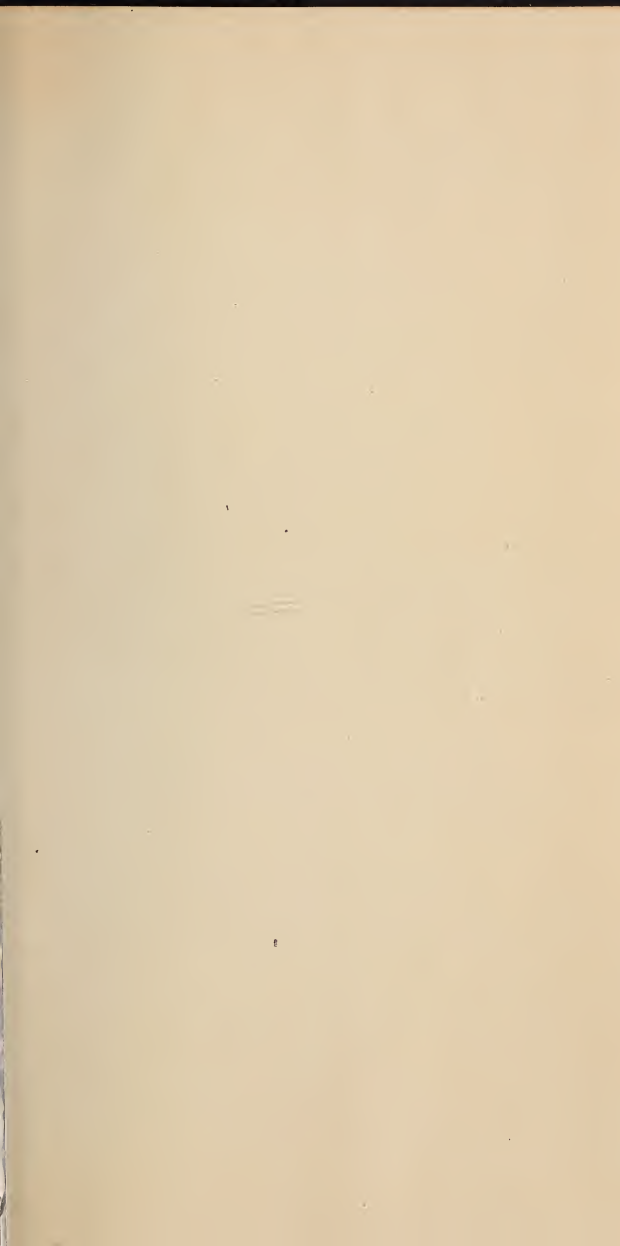
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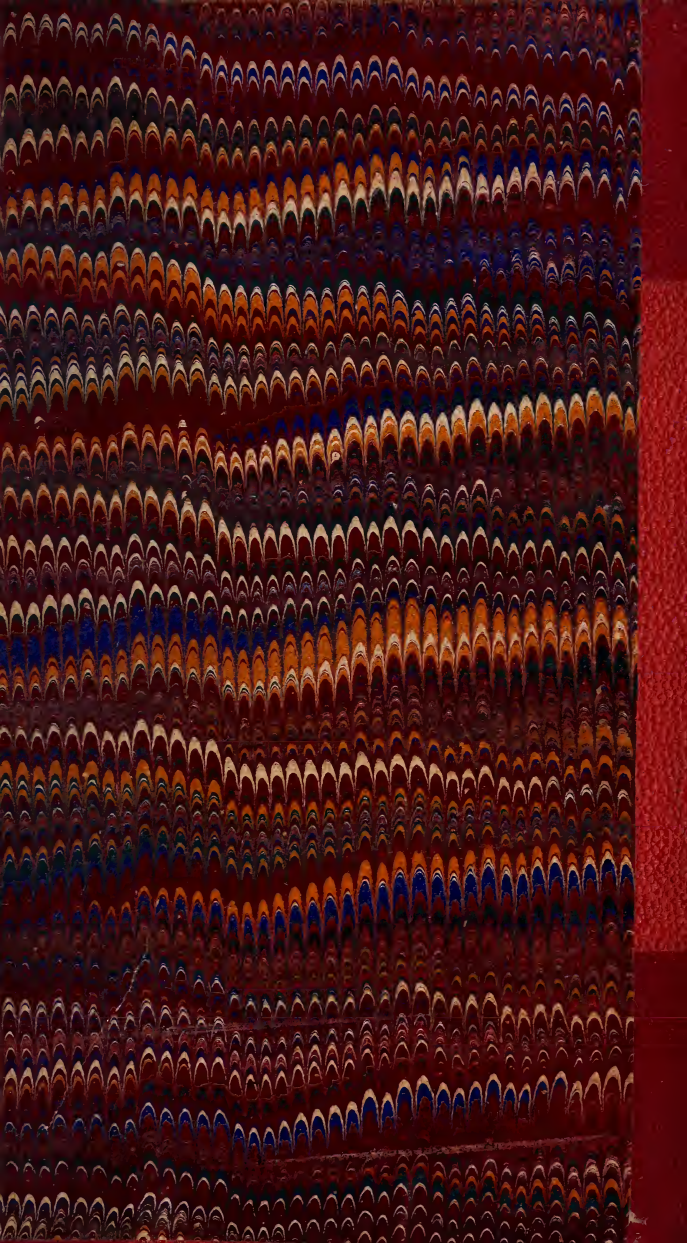




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